

## SIMONA CLÒ

MedSharks

Simona Clò is a Marine Biologist, member of IUCN Shark Specialist Group for the Mediterranean Sea. She manages research projects on sharks and other endangered species with MedSharks, a research and conservation organisation.

Her studies, published on International, peer-reviewed journals, are funded by European projects (LIFE), the Fondation Prince Albert II de Monaco, Project Aware, the Save Our Seas Foundation and other private sponsors. She currently is the project manager of the EU-funded Clean Sea Life project and ROC-POP project for the University of Trieste.



Clean Sea Life Fishing For Litter: addressing a crucial gap in the legislation and promoting the implementation of a powerful tool in the fight against marine litter.



LIFE15 GIE/IT/000999

[WWW.CLEANSEALIFE.IT](http://WWW.CLEANSEALIFE.IT)

TUTTI INSIEME PER UN MARE PULITO

COORDINATORE BENEFICIARIO



BENEFICIARI ASSOCIATI



CoNISMa  
Commissione Nazionale  
Interministeriale  
per lo Sviluppo del Mare



# Clean Sea LIFE – 2016-2020

- **110+** tons of ML and **600+** ALDFG
- **430** tourism and leisure operators
- **4,500** school children
- **20,000** people took the CSL pledge
- **31,600** people touched by outreach
- **96,000** people attended the exhibit
- **5+ million** people reached through media
- Shaping legislation reducing ML in Italy

**The Clean Sea  
LIFE community:  
power of civil society in the  
fight against marine litter**

**A flagship project** of LIFE programme  
**Best Practice** at 2017 G7 plastics workshop

# Citizens as agents of change

1. Building a community
2. Empowering stakeholders
3. Fostering co-responsibility



# 1. Building a community



- **Marine stakeholders:** fishing, tourism, leisure operators
- **Social actors:** divers, boaters, anglers, citizens, children
- **Interested parties:** Authorities, at all levels  
local/regional/national/EU

# 1. Building a community

**EXAMPLE**



clubs



Instructors and federations



testimonials



specialised media



specialised trade shows

**...people they trust**



# 1. Building a community



# 1. Building a community

**EXAMPLE**

Show and celebrate their successes



## 2. Awareness and training

### EXAMPLE

Our tone –

No hysteria

truthworthy

Solution-oriented

Grounded in everyday experience



## 2. Awareness and training

**EXAMPLE**



Tell stories, not just your activity

## 2. Awareness and training

Be flexible, prepare tailored materials as needs arise

### EXAMPLE

Clean Sea LIFE è un progetto europeo di sensibilizzazione sui rifiuti marini. Segui sui social o sul sito [www.cleansealife.it](http://www.cleansealife.it)

**#PuliziediPrimavera in spiaggia: occhio al Fratino!**



Informazioni sul sito del Comitato Nazionale Conservazione del Fratino (CNCF) [comitatofratino.org](http://comitatofratino.org)

**in spiaggia con cautela, c'è il Fratino che**  
**Dev'essere a luglio è necessario prestare massima attenzione quando ci muoviamo in spiaggia o organizziamo attività di pulizia:** è il periodo di cova dei Fratini, uccellini con le piume color sabbia e una parziale mascherina nera attorno agli occhi. Depongono le uova in una buchetta nella sabbia, ai piedi della duna, e per 28 giorni le proteggono dal sole e dal freddo allontanandosi solo per mangiare. **Il Fratino minacciato** - per esempio dall'arrivo di una persona o di un cane. In Italia la popolazione del fratino ha subito un drastico calo: ogni nido è quindi preziosissimo per la conservazione di questa specie che è protetta e a rischio estinzione. **Facciamo allora molta attenzione se organizziamo pulizie della spiaggia,** soprattutto in aree conosciute di deposizione (per sapere quali sono, contatta gli esperti del Comitato Nazionale Conservazione del Fratino). **In spiaggia, occhio dove mettiamo i piedi** per non schiacciare inavvertitamente le uova. Se troviamo un nido, allontaniamoci subito per non disturbare la cova: se i genitori restano lontani troppo a lungo le uova non schiudono più. Meglio ancora, **organizziamo le pulizie in autunno e inverno** quando le mareggiate restituiscono grandi quantità di rifiuti uniti allo **#sandburrrasca** Clean Sea LIFE. Per informazioni: [www.cleansealife.it](http://www.cleansealife.it)

Se trovi un nido non toccare uova o pulcini - i genitori sono nelle vicinanze.

Puliamo la spiaggia ma lasciamo i ghetti e segretti per preservare l'habitat naturale! Fratini si nutrono di invertebrati.

Non calpestare le dune: sono habitat fragili e delicati.

trova gli referenti regionali Comitato Fratino: <https://comitatofratino.org/chi-siamo/referenti-regionali/>

Clean Sea LIFE

**dove vanno a finire i palloncini?**



**Cadono in terra, o in mare. E possono uccidere.**  
 L'altezza del lancio di un palloncino influenza i danni - sia le conseguenze sugli animali (piccole e medie specie).

**SONO STATI TROVATI NELLE VISCERE DI CANTARIGHE, DENTRO COCCODOGI, PESCICCI E ACCIUGHI QUANDO SERRANO IL MARE. I palloncini entrano anche in fosse termiche e invertebrati di una medusa e un calamaro, uno dei più pericolosi degli animali marini. Una stragale catturata su oltre 1000 uccelli di 55 specie diverse è ricoperta come una dai rifiuti più pericolosi. Anche i palloncini biodegradabili possono soffocare gli animali per questo gli stessi produttori invitano a non lanciarli, ma a farli sciogliere in acqua per nel cestino.**

**1 SONO OPACI**  
 nei laghi e sulle spiagge - i pescatori li raccolgono perché, dal fondo del mare.

**2 SEMBRANO CRO**  
 i pesci galleggiano come una croce e si catturano.

**3 SONO LETALI**  
 un palloncino con soffocato e ferisce di forte dolore e morte.

Non lanciare palloncini! Gli che si chiari palloncini possono danneggiare gli animali, non lasciarli sul fondo del mare. Inquinano gli habitat, inquinano gli animali, inquinano molto tempo e inquinano.

[www.cleansealife.it](http://www.cleansealife.it)

EUROPEAN UNION ASSOSUB

**EUDI 27** EUROPEAN UNION ASSOSUB

**#iononciccio**

**200 milioni** in Italia, ogni giorno.

**34** cicche ogni 100m di spiaggia.

la cicca è di plastica (e anche tossica).

**ritira** il portacicche omaggio Assosub allo stand Clean Sea LIFE





## 2. Awareness and training

**EXAMPLE**

#campaigns #challenges,  
Social media: choose wisely

  
@CleanSeaLife



## 2. Awareness and training

### EXAMPLE

Train the trainer (teachers)



## 2. Awareness and training

**EXAMPLE**

provide journalists stories, images, people



PS - iPhone (HD) is fine

### 3. Foster co-responsibility

#### EXAMPLE

- Tailor messages to audiences



### 3. Foster co-responsibility

WWW.CLEANSEALIFE  
**EXAM**



### 3. Foster co-responsibility

#### EXAMPLE

Co-create and test solutions  
100 fishing vessels landing ML



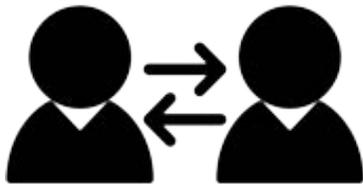
### 3. Foster co-responsibility

## EXAMPLE

ask policy makers what data they need  
Produce evidence-based reports fit for policy



# Takehome message from Clean Sea LIFE



engage



Inform and inspire



motivate



be **flexible!**

**Thank you**

[www.cleansealife.it](http://www.cleansealife.it)

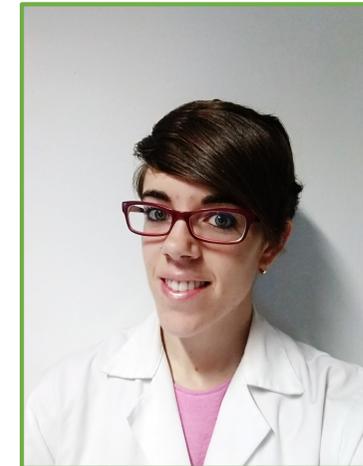
# VERÓNICA GODOY



UNIVERSIDAD  
DE GRANADA

She obtained her degree in Geology from the University of Granada in 2014. In 2016 she was hired by Manpower Group Solutions S.L. to work as a science monitor at the Science Park in Granada.

In 2018 she began his doctoral studies in the Chemistry Programme of the University of Granada, focusing on the study and characterisation of microplastics and collaborating in various dissemination activities on marine litter and how to mitigate it. In parallel to her doctoral studies, in September 2018 she was awarded an employment contract under a LIFE project on plastic waste recycling, within the same Department.



LIFE4FILM & LIFEPLASMIX: Towards a cleaner environment  
by improving the mechanical recycling of plastic



# LIFE<sub>4</sub>FILM & LIFEPLASMIX: Towards a cleaner environment by improving the mechanical recycling of plastic

**Speaker:** Verónica Godoy

<sup>1</sup>University of Granada. Avda Fuentenueva s/n, 18071, Granada (Spain)



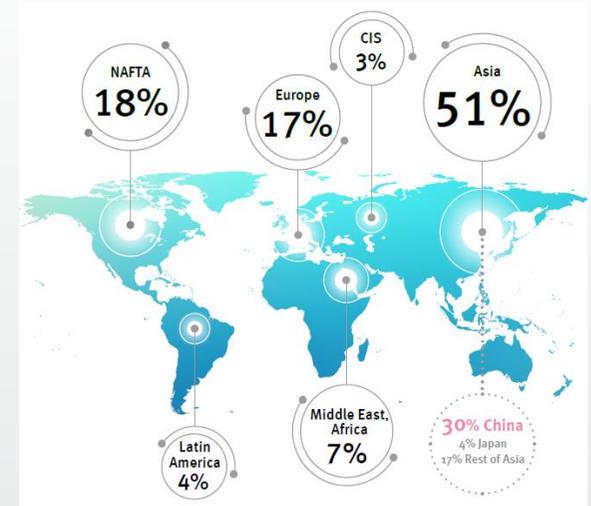
## INDEX

- **Introduction:** The current situation of plastic production and recycling in UE and Spain
- **LIFE<sub>4</sub>FILM:** Goals and objectives. Results preview
- **LIFEPLASMIX:** Goals and objectives. Results preview
- **Conclusions** and next steps

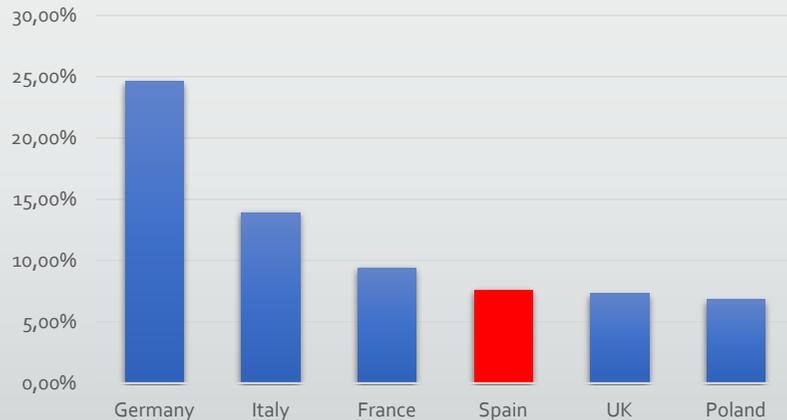


# INTRODUCTION

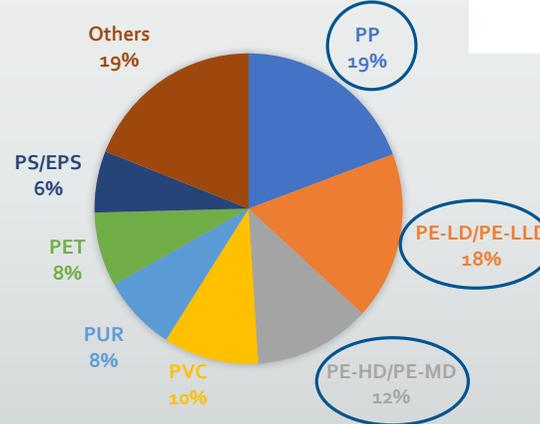
- 2018: Production of plastics reached 61.8 million tonnes in Europe. The third plastic producer in the world.
- 2018: Consumption of plastic products reached 51.2 million tonnes in Europe. In the ranking of demand, Italy is the second and Spain is the fourth.
- The main types of polymers used are PP and PE.



Plastic demand in Europe



PLASTIC DEMAND BY RESIN



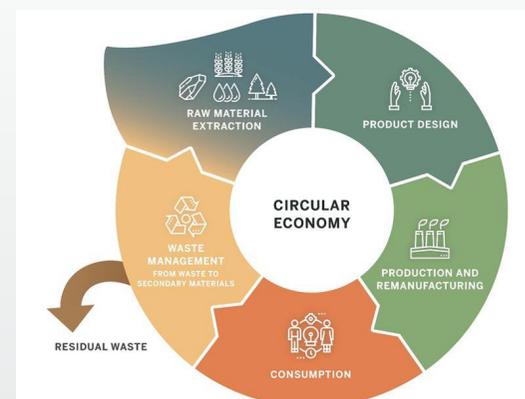
Source: Plastics Europe, 2019.



# INTRODUCTION

- 2018: Almost 30 Mt of plastic waste were generated in Europe. Almost 25% of this amount is still deposited in landfill.
- 2018 Spain: approx. 2.5 Mt of plastic waste were generated. Almost 38% is still deposited in landfill.

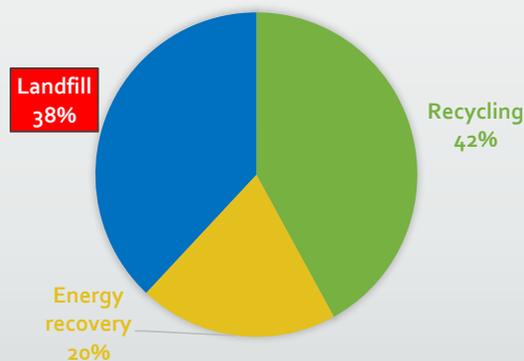
## European legislation about plastics



- ❑ Recycling 70% of municipal solid waste (MSW) by 2030.
- ❑ Recycling 60% of packaging waste by 2020 and 80% by 2030.
- ❑ Reduce landfill deposit to a maximum of 10%.
- ❑ Reduce greenhouse gas emissions by 40% by 2030.
- ❑ Reduce marine litter by 13% by 2020 and 27% by 2030.



## PLASTIC WASTE IN SPAIN



Sources: European Commission, 2015; Plastics Europe, 2019.

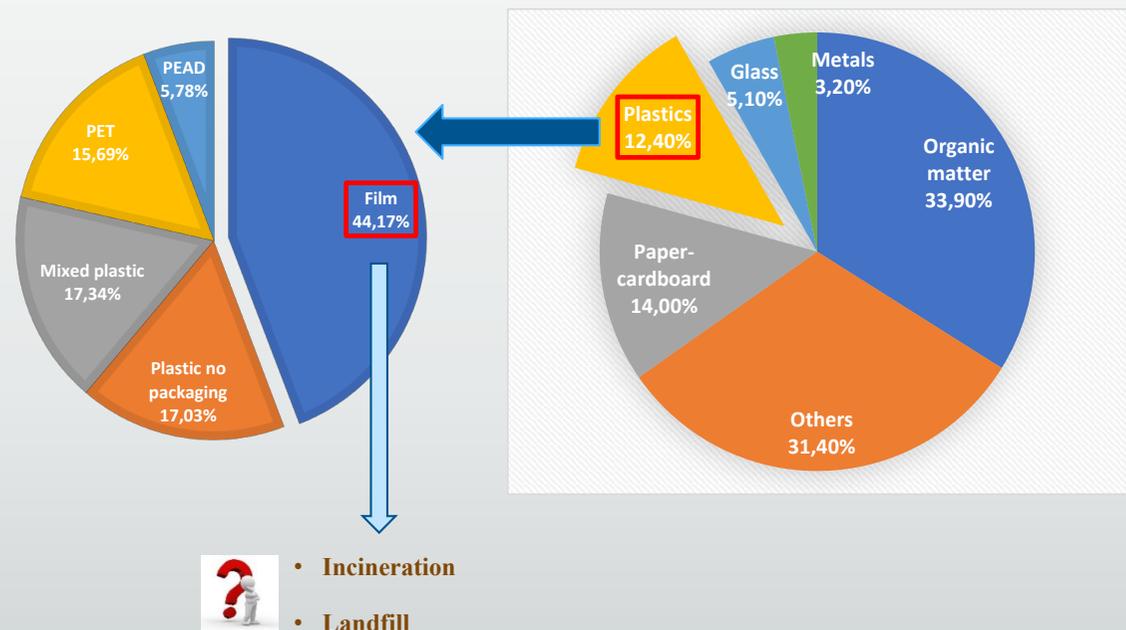
# LIFE<sub>4</sub>FILM: POST-CONSUMPTION FILM PLASTIC RECYCLING FROM MUNICIPAL SOLID WASTE (LIFE4FILM-LIFE17/ENV/ES/000229)

**Coordinator:**  
FCC M.A.

**Partners:**  
University of Granada  
AIMPLAS  
Stadler Selecciona S.L.U.  
Lindner LTD  
EREMA  
Ibáñez Extrusoras S.L.



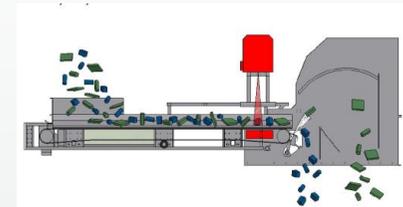
## Average composition of organic-rest fraction in Spain





# LIFE<sub>4</sub>FILM. Goals and objectives

- This Project will implement a first pre-industrial pilot demonstration of a new cost-effective solution for recycling polyethylene film.
- Main steps of the process:
  - Stage 1 – Separation: Recovery of plastic film waste using an innovative optical separation techniques.
  - Stage 2 – Washing and drying: Remove the moisture and dirt from the plastic waste.
  - Stage 3 – Extrusion: Degassing process and pelletization
  - Stage 4 – Blowing: Production of recycled plastic film
- Specific objectives:
  - Production of over **500 kg/hour** of recycled polyethylene → **4,000 tonnes/year** of recycled film
  - Incorporation of **70% of recycled film** in new products.
  - **Reduction of carbon footprint by 65%** when comparing with the production of new plastics.
  - Reduction of marine litter as a collateral effect of the Project.
  - **Reduction of landfill and incineration of plastic waste by 23%.**



Stage 1



Stage 2



Stage 3-4



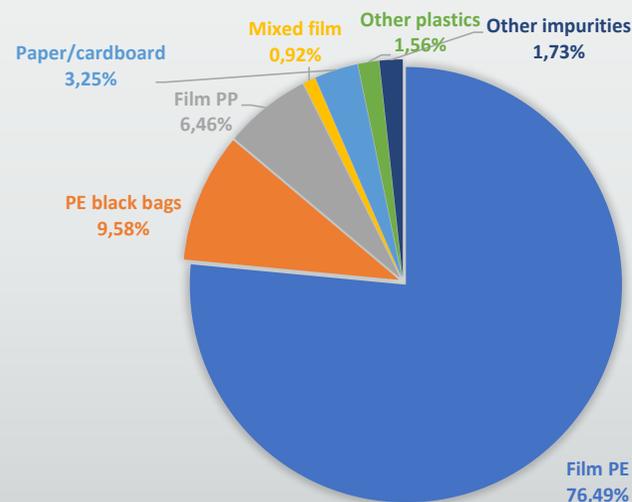
# LIFE4FILM. Results preview

- The first step was the characterization of film fraction from organic-rest fraction. This was carried out in the waste treatment plant of Granada (Ecocentral) in Spain.
- The second step was the determination of moisture and dirt content (in terms of weight) by washing the plastic film. This is important to optimize the recycling process and make it as economically and environmentally viable as possible.



Characterization of bales from MSW

Composition of the film fraction from organic-rest fraction



Moisture and dirt content of plastic film waste under different washing conditions

Moisture (%)	Dirt loss at room temperature (%)	Dirt loss at 60°C (%)	Dirt loss at 60°C+NaOH (%)
16-25	≈ 14	≈ 14	≈ 12



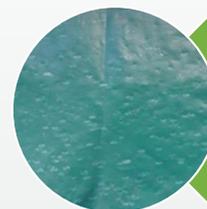
## LIFE<sub>4</sub>FILM. Results preview

- Some extrusion tests have already been carried out and, consequently, tests were performed on samples of pellets and blown films from different extrusion tests.
- **The aim of that tests was to determine the aspects to be improved and establish the necessary corrections to obtain a product with the appropriate quality for the expected final use.**

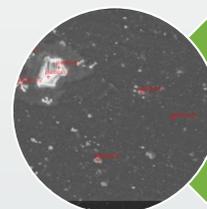


*Pellets and blown film obtained from some extrusion and blowing tests.*

### Main results obtained



Some aspects need to be improved related to moisture content and unmelted parts.



Use of some additives ( $\text{CaCO}_3$  and  $\text{KCl}$ ) could improve the properties of the recycled plastic.



The recycled film has good tensile properties, but its tear resistance need to be improved.

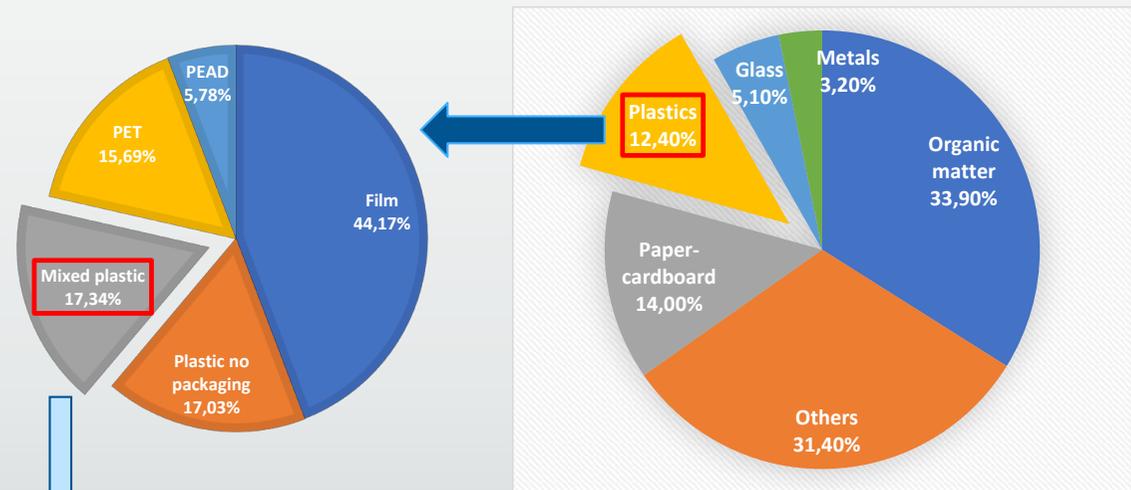
# LIFEPLASMIX: PLASTIC MIX RECOVERY AND PP&PS RECYCLING FROM MUNICIPAL SOLID WASTE (LIFEPLASMIX- LIFE18/ENV/ES/000045)

**Coordinator:**  
FCC M.A.

**Partners:**  
University of Granada  
ANAIP  
Fundación ANDALTEC I+D+i  
Lindner Washtech GmbH  
Pellenc Selective Technologies  
Stadler Selecciona S.L.U.



## Average composition of organic-rest fraction in Spain



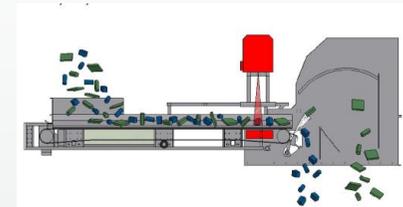
- Incineration
- Landfill





# LIFEPLASMIX. Goals and objectives

- This Project will implement a first pre-industrial pilot demonstration of a new cost-effective solution for recovery and recycling of plastic mix present in MSW (which comprises PP, PS and EPS).
- Main steps of the process:
  - Stage 1 – Separation: Recovery of plastic film waste using an innovative optical separation techniques.
  - Stage 2 – Washing and drying: Remove the moisture and dirt from the plastic waste.
  - Stage 3 – Extrusion: Degassing process and pelletization
- Specific objectives:
  - Production of **over 3,769 tonnes/year** of recycled plastic mixed material.
  - Achieve plastic mix recovery rates of about **90%**.
  - **Reduction of carbon footprint by 65%** when comparing with the production of new plastics.
  - Reduction of marine litter as a collateral effect of the Project.
  - **Reduction of landfill and incineration of plastic waste by 13%** of the total plastic mix in MSW.



Stage 1



Stage 2



Stage 3



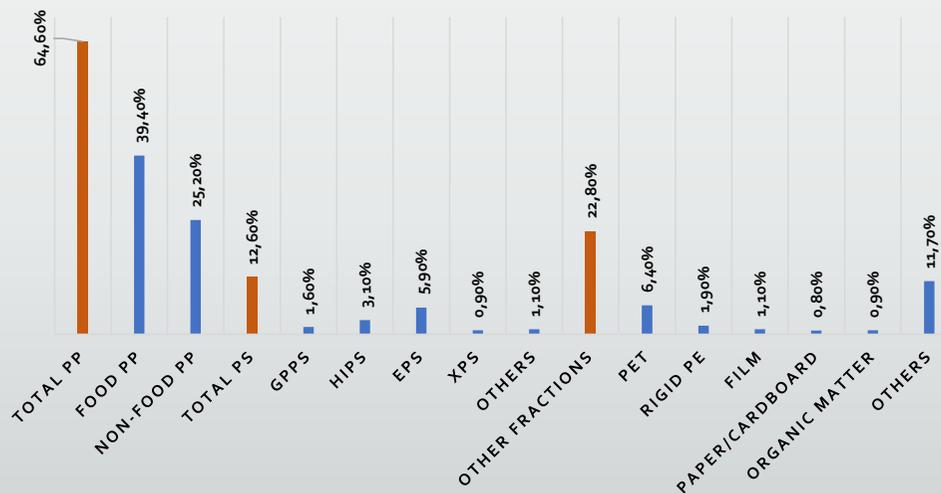
# LIFEPLASMIX. Results preview

- The first step was the characterization of plastic mix from organic-rest fraction. This was carried out in the waste treatment plant of Granada (Ecocentral) in Spain. In this case, classification on food and non-food grade plastics were made. This is important in order to optimise the separation process in the plant and to be able to apply the recycled packaging to the food industry, thus avoiding single-use plastics.
- The second step was the determination of moisture and dirt content (in terms of weight) by washing the plastic material. This is important to make the recycling process as economically and environmentally viable as possible.

Characterization of bales from MSW



Composition of the mixed plastic fraction from organic-rest fraction



Fraction	Average moisture %
Polypropylene (PP)	4.84
Polystyrene (PS)	6.97

Fraction	Average dirt loss %
Polypropylene (PP)	8.12
Polystyrene (PS)	8.11



# LIFEPLASMIX. Results preview

*Results of classification on food and non-food plastic materials*

Color	(%)
Natural	46,20
White	32,37
Others	10,84
Yellow	4,05
Blue	3,66
Red	1,61
Green	1,28



*Colours of food plastic materials*



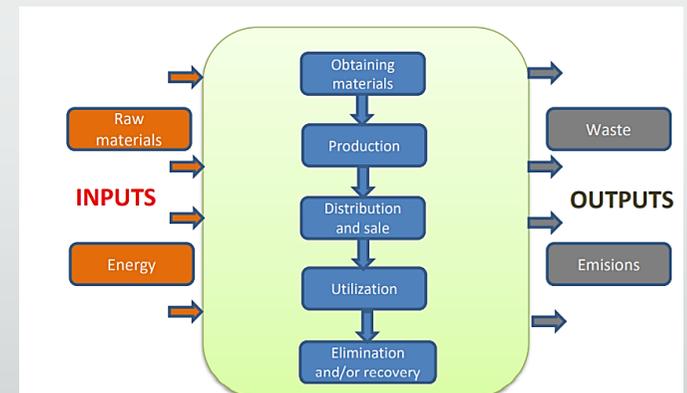
Color	(%)
White	39,29
Others	21,38
Blue	15,07
Green	7,57
Natural	7,04
Red	6,78
Yellow	2,86

*Colours of non-food plastic materials*



## NEXT STEPS IN LIFE<sub>4</sub>FILM AND LIFE PLASMIX

- Development of the equipment for the pilot plant
- Installation, validation and operation
- Replicability in plastic industry & transfer to other industries
- Environmental impact of the project (LCA)
- Socio-economic impact of the project
- Dissemination plan



# THANK YOU VERY MUCH FOR YOUR ATTENTION

Emails of contact: [mcalero@ugr.es](mailto:mcalero@ugr.es) // [vgcalero@ugr.es](mailto:vgcalero@ugr.es) // [emiliolp@ugr.es](mailto:emiliolp@ugr.es) //  
[sunil.arjandas@fcc.es](mailto:sunil.arjandas@fcc.es)

Websites of LIFE projects: <http://life4film.com/en/4film-en/>  
<http://lifepiasmix.com/en/plasmix/>



*These projects are funded by the European Union through the LIFE Programme*

# XENIA TOMBROU



**ICRE8**  
International Centre for Research  
on the Environment & the Economy

Xenia Tombrou is an environmental activist and part of the Greek MEDfreeSUP team, responsible for research and co-design processes on Corfu island. Her mission: create small interventions with big impact to empower members of the community.

Since 2017, she's leveraged her background in communication management and system design thinking to help improve Waste Management systems in Greece. As a daughter of Corfu, her passion was ignited by the ten day strike of waste management personnel that left piles of trash next to bins all over the island.



Sustainable plastic waste management in the Greek island as replicable example for the historic cities.

The case study of Corfu

# Corfu - Kerkira



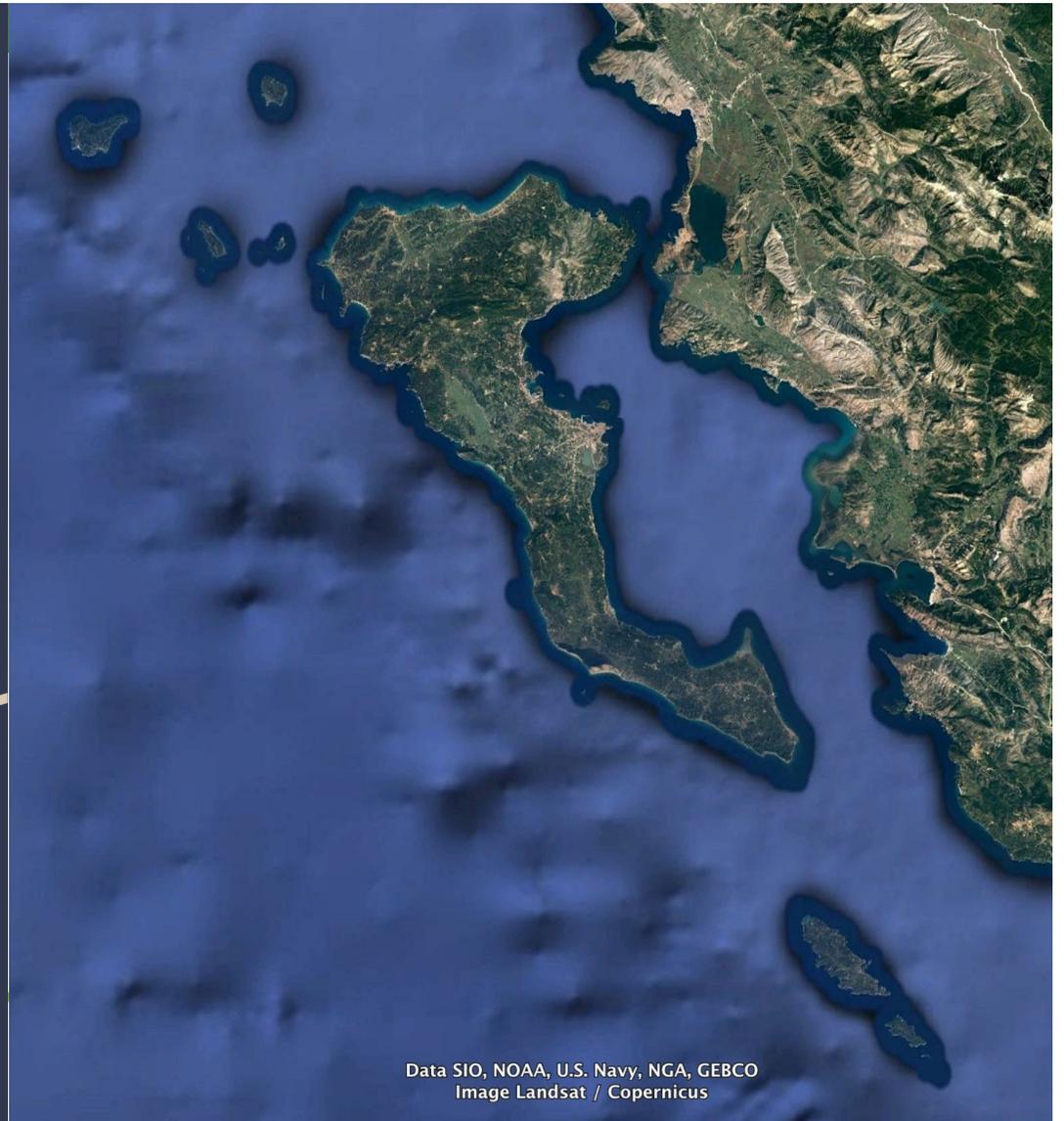
102.000<sup>1</sup>



1.300.000<sup>2</sup>

1 - [January 2011 population census](#)

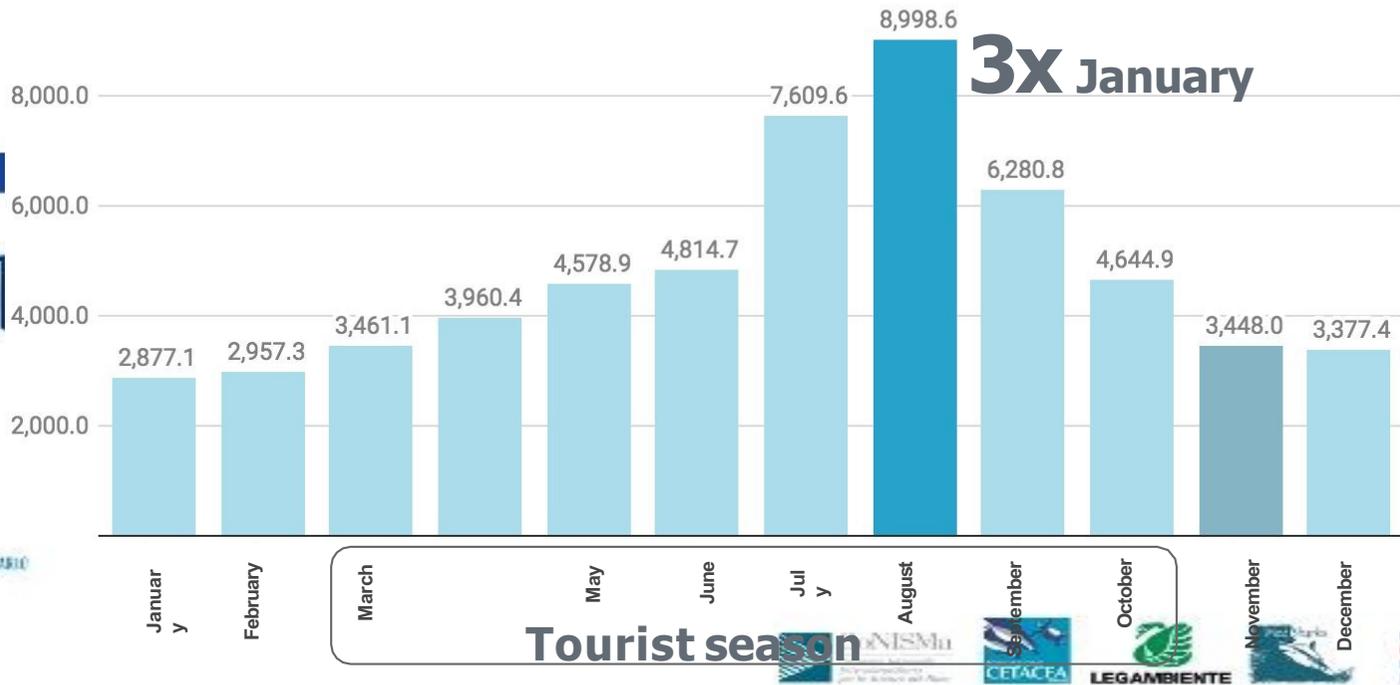
2 - [Internationals Airport arrivals in Corfu 2017](#)



Data SIO, NOAA, U.S. Navy, NGA, GEBCO  
Image Landsat / Copernicus

# Total waste per month in tons

## Τονάζ Μεταφερόμενων Απορριμμάτων Κέρκυρας 2017



1- [Extensive research on the waste management issue on Corfu by Daphni Scaglioni 2018](#)

# Summer 2018

## 70 days

July-August-September

no waste collection

1- [The Telegraph - Summer holiday concerns grow over Corfu's rubbish 'nightmare'](#)



**Brian Bould**  
@pastsnapper



Corfu, roadside rubbish huge problem over the island. [#rubbish](#)



12:15 PM · Jun 27, 2018



See Brian Bould's other Tweets

Spartylas

Sinies

Liapades

Where can I recycle in Corfu? / Πού μπορώ να ανακυκλώσω στην Κέρκυρα;

Find your nearest recycling centre in Corfu / Βρείτε το πλησιέστερο κέντρο ανακύκλωσης στην Κέρκυρα

Opened / Άνοιξε    Opening Soon / Σύντομα

Location / Τοποθεσία    100 Km

Showing the closest 30 locations.

**Καλαφιatiónes / Καλαφιatiώνες Corfu**  
All recyclable materials accepted / Όλα τα ανακυκλώσιμα υλικά  
**Opening Hours / Ωρες λειτουργίας**  
Sunday / Κυριακή: 11:00 - 13:00  
**Contact / Επικοινωνία:**  
Srgyos Bratos / Σπύρος Μπράτος: +30 6986985890

**Γουβία / Γουβιά Corfu**  
All recyclable materials accepted except cardboard / Όλα τα ανακυκλώσιμα υλικά εκτός από το χαρτόνι  
**Opening Hours / Ωρες λειτουργίας**  
Friday / Παρασκευή: 13:00 - 15:00  
Saturday / Σάββατο: 13:00 - 15:00  
**Contact / Επικοινωνία:**  
Ashley Pallis

**Τεμπλονι / Τεμπλονι**



# Sinies

Community Recycling 2.0

## Social Enterprise

- Employees
- Volunteers
- Municipality
- Funds
- Infrastructure

## Services provided

- Training
- Pick up
- Sorting

## Education

- Events
- Projects
- Pilots



# Sinies

Results 2019

88,2 tons glass

70,3 tons paper

9,3 tons metals

23,3 tons plastic

10,5 P.E.T. #1

4,1 Soft Plastic

8,7 Hard Plastic



## ΓΩΝΙΑ ΑΝΑΚΥΚΛΩΣΗΣ

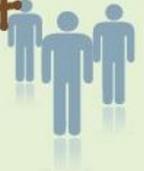
Στατιστικά Στοιχεία 2019

“ Κατά το διάστημα αυτό η Γωνιά Ανακύκλωσης λειτούργησε με την ευθύνη του Πολιτιστικού Συλλόγου Σινιών, του Τ.Σ. Σινιών και του Τ.Σ. Γιμαρίου ”

### Συνεργαστήκαμε



Αριθμός  
Εθελοντών } 64  
888 Ώρες λειτουργίας  
3120 Ώρες εργασίας  
22 Εβδομάδες εργασίας



### Ανακυκλώσαμε

70,3 Τόνους  
Χαρτί & χαρτόνι



Γυαλί  
88,2 Τόνους

Λευκό σίδηρο 1,3	10,5 ΠΕΤ
Αλουμίνιο 1,1	8,7 Πλαστικά ανάμεικτα
Μέταλλα χοντρά 6,8	4,1 Νάιλον

Liapades Cleaning Buddies

Online Communication

---

Certificates of Participation

---

Re-Use Corner



# MED FREE SUP

TIITTI

Supported by:



Climate-KIC

Climate-KIC is supported by the EIT, a body of the European Union



# Partners

## Italy

Emilia-Romania region

Bologna

Cervia

Ravenna

Misano Adriaco

## Croatia

Cres isle

Zlarin isle

Sibenik-Knin  
county community



Greece



Syros

Ikaria

Corfu



Supported by:



Climate-KIC is supported by the EIT, a body of the European Union



Protocol

Objective

Co - Design Process

Outcome



**Adoption of non-SUP**

**Public & Private sector**

**Official commitment**



Supported by:



Climate-KIC is supported by the EIT, a body of the European Union



# Online Awareness Platform

Foster behavioral change

for Consumers

**Gamification Approach**

**Rewarding Schemes**



Supported by:



Climate-KIC is supported by the  
EIT, a body of the European Union





*Πως μπορούμε να μειώσουμε  
ή και να εξαλείψουμε τα πλαστικά μιας χρήσης  
στο νησί μας;*



W.CLEANSEALIFE.IT

PER UN

# Climathon

## Corfu

Organised by  
Garbage Art Corfu & Mindspace



Main City Partner



ΔΗΜΟΣ ΚΕΝΤΡΙΚΗΣ ΚΕΡΚΥΡΑΣ  
& ΔΙΑΠΟΝΤΙΩΝ ΝΗΣΩΝ

Partners



ATHENA Research & Innovation  
Information Technologies



Climate-KIC

Climate-KIC is supported by the  
EIT, a body of the European Union



Thank you for your time!

& be inspired by

---

## The case of Corfu



[xenia.tombrou@gmail.com](mailto:xenia.tombrou@gmail.com)

## PAULA DAMAŠKA



Paula Damaška studied sociology of research at the Faculty of Humanities and Social Sciences in Zagreb where she got her master's degree late in 2019. She continued her education in the field of entrepreneurship, innovative entrepreneurship and worked as an administrative assistant on research projects.

Paula worked in Impact House Consulting at the beginning of 2020 as a project coordinator on projects such as Open Lab Policy Lab and continued her professional development in Green Energy Cooperative as a project coordinator on the MedFreeSUP project.



Zlarin island (Croatia) local community engagement in reducing single-use plastics in foodservice operators and cafes



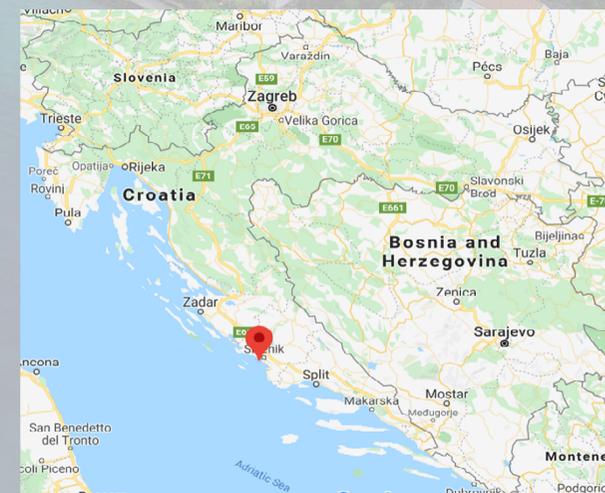
Photo: Gojko Vukov Colić/Croatian Tourist Board

**Area:** 8,05 km<sup>2</sup>

**Habitants:** 276 (službeno)

**Tourists in summer season:**  
~ 3.000

**Municipality:**  
City of Šibenik



# Roadmap to change

Summer  
2018

Fall  
2018

Winter  
2018/2019

Spring  
2019

Summer  
2019

Summer  
2020

Summer  
2021

Spent:  
/ 113,000 plastic bags,  
/ 12,300 disposable plastic cups  
/ 36,700 other disposable plastic  
items

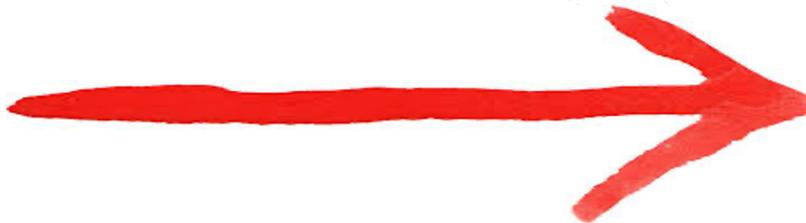
Savings of at least  
162,000 pieces of  
disposable plastic,  
workshops,  
education, eco film  
evenings, media ...

To be  
continued  
...

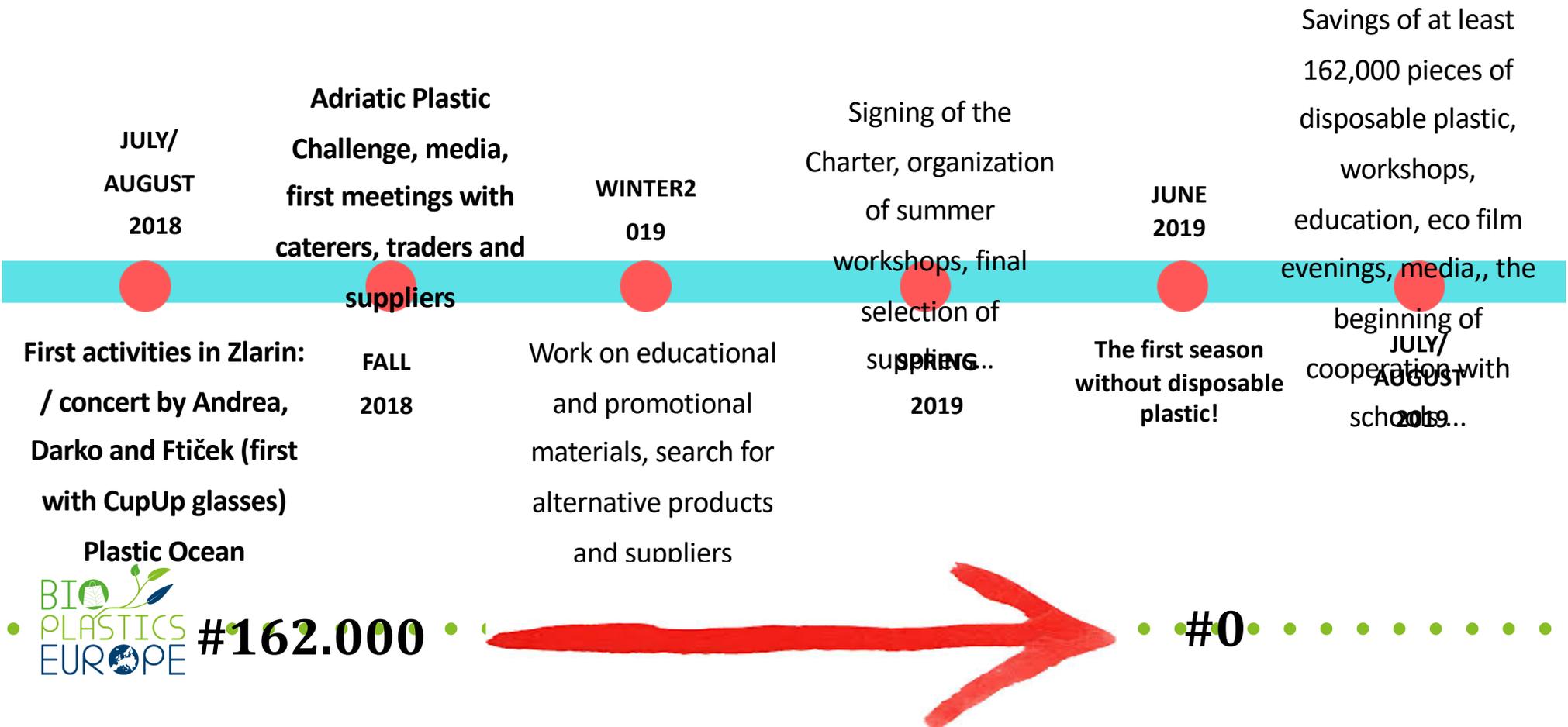


#162.000

#0



# WHAT CAN BE DONE IN A YEAR?



## WHAT DOES IT TAKE?

### Plastic-free recipe

- 1 small island (with people 😊) (and plastic 😞) (disposable)
- 3+ volunteers (or volunteers), enthusiastic (necessary!)
- 1 Tourist Board
- 1 Local committee (or municipality or small town, if available)
- (at least) 1 artist, green in the head and heart
- 1 (cooperative) graphic designer

• a wider circle of partners, collaborators and supporters, to share the work with



**How it all started...**





# Making of the brand “Za Zlarin bez plastike”

BIO  
PLASTIK



BIO PLASTICS FORUM

# Learning from mistakes...

ZA ZLARIN BEZ PLASTIKE, LA REVOLUTION ALBATROS I  
TURISTIČKA ZAJEDNICA ZLARIN PREDSTAVLJAJU:

# EKO FILMSKI FESTIVAL

Svjetski priznati dokumentarni filmovi koji govore o po-  
promjenama, održivom životu, oceanima i rijekama koji  
svima izvor života!

27.7. - DEMAIN  
8.8. - LIVING THE CHANGE  
11.8. - BLUE HEART  
17.8. - SEA OF LIFE



**otičaj za val**  
... kako pripremiti ...  
... izbjegniti ...  
... održivo ...

**Korijete gataju starije, sretnije gađe digne  
ZLARIN – OTOK BEZ  
PLASTIKE**

Zlarić, otok bez plastike i otok bez automobila, uslovi da bi bio otok bez plastike ...  
... otok bez plastike ...  
... otok bez plastike ...  
... otok bez plastike ...

**ODGOVOR**  
... odgovor ...  
... odgovor ...  
... odgovor ...

**ODGOVOR**  
... odgovor ...  
... odgovor ...  
... odgovor ...

**Hrvatska  
Čitanka 5**

ZA 5. RAZRED ODRNOVE ŠKOLE

MIRJANA JUKIĆ • SLAVICA KOVAČ • IVERKA KRAŠEVAČ  
DUBRAVKA TEŽAK • MARTINA TUNUKOVIĆ • MARTINA VALEC-REBIĆ

BIO  
PLASTICS  
EKOLOGIJA

# Where it went..



**Zlarin in corona time**



Pick battles big enough to  
matter, small enough to win.

Jonathan Kozol

quote fancy

## THANK YOU FOR ENGAGING WITH US.....

### Project leader

#### HAMBURG UNIVERSITY OF APPLIED SCIENCES

Research + Transfer Centre „Sustainability &  
Climate Change Management“ (FTZ-NK)  
Ulmenliet 20 / 21033 Hamburg / Germany  
T +49 40 428 75 6362 (Mon - Fri 8AM-3PM)  
Email: [bioplastics@ls.haw-hamburg.de](mailto:bioplastics@ls.haw-hamburg.de)  
Website: <https://bioplasticseurope.eu/>

### Meeting organiser

#### University of Bologna

Department of Management  
Department of civil, chemical, environmental  
and materials engineering  
Email: [alessandra.bonoli@unibo.it](mailto:alessandra.bonoli@unibo.it)  
[angelo.paletta@unibo.it](mailto:angelo.paletta@unibo.it)  
Website: <https://www.unibo.it/it>

..... THANK YOU FOR YOUR ATTENTION!



**HAW Hamburg**



ALMA MATER STUDIORUM  
UNIVERSITÀ DI BOLOGNA



Horizon 2020