



Observatorio Turístico de Navarra  
Nafarroako Turismoaren Behatokia



**TECHNICAL INSTO WEBINAR ON EMPLOYMENT**

# **SOLID WASTE MANAGEMENT IN TOURISM:**

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## **DATA SOURCES, GOOD PRACTICES AND CHALLENGES**



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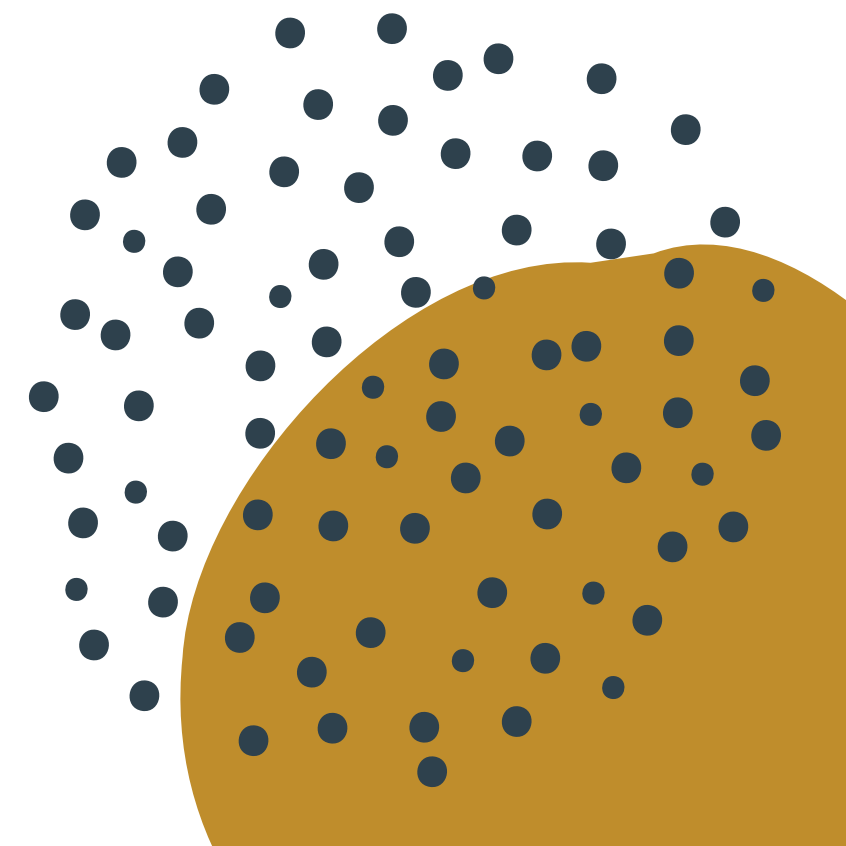
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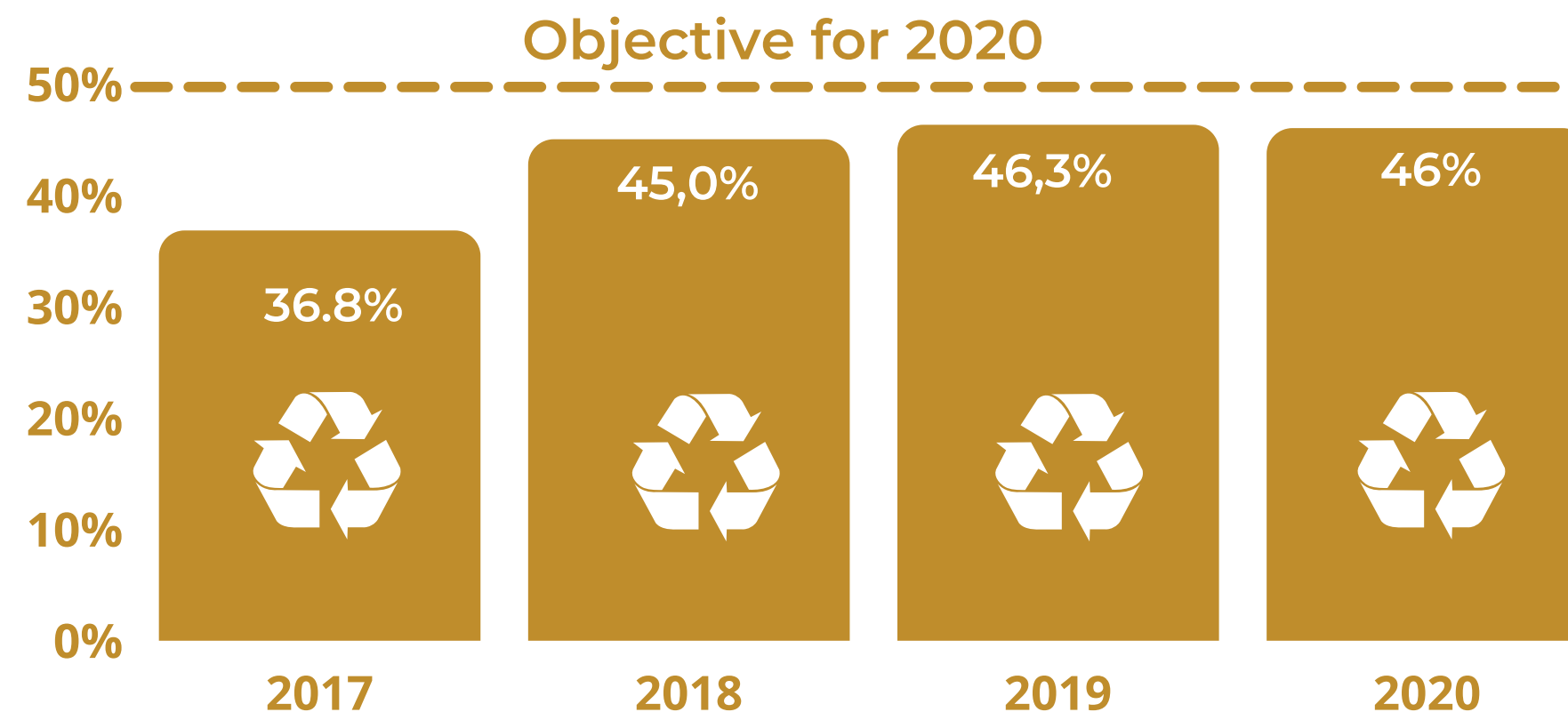
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# 1. DATA SOURCES



# 1.1 Waste management in Navarre

- **Strategic framework:** Waste Master Plan of Navarre 2017-2027
- Tourism sector waste is managed as **domestic-commercial** waste.
- For **2020**, an objective was set to recycle **50%** of domestic and commercial waste.
- For **2027** the **objective** is **75%**.



## Domestic-commercial waste 2020

- 283,000 tonnes of domestic-commercial waste was generated
- 430 kg per person
- On average 46% of domestic and commercial waste was recycled.
- **14** out of **16** local authorities Navarre meet the objective of 50%
- Frontrunners reached 67-68%

# 1.2 Generation of equivalent waste

To **estimate waste generation corresponding to tourists**, we calculated the solid waste generation equivalent to the tourist population in 2020.

**Assuming** that tourists have the **same pattern of waste generation as the resident population**, the **equivalent generation would be 1,789 tonnes of solid waste yearly**.

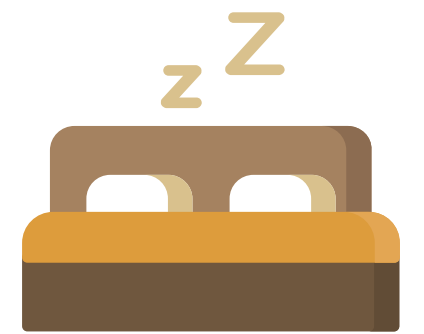
## Weaknesses:

- Not taking in to account **seasonality**.
- Limited utility for decision making

**Average daily population of tourists:**  
4,207



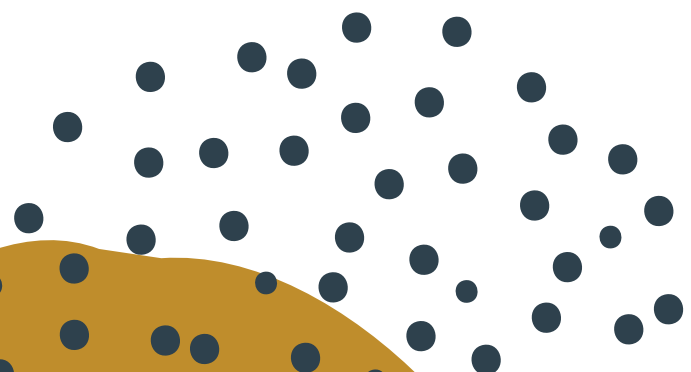
**Yearly overnight stays:**  
1,535,435



**Waste generation with same consumption as local population:**

**Yearly: 1,789 t**

**Daily: 4,9 t**



# 1.3 LOCAL AUTHORITIES

- Waste management is carried out by local authorities; therefore they can be an important source of information.
- Pamplona-Iruña offers an exclusive "door to door" service for hospitality and commerce in the old town.

## Example:

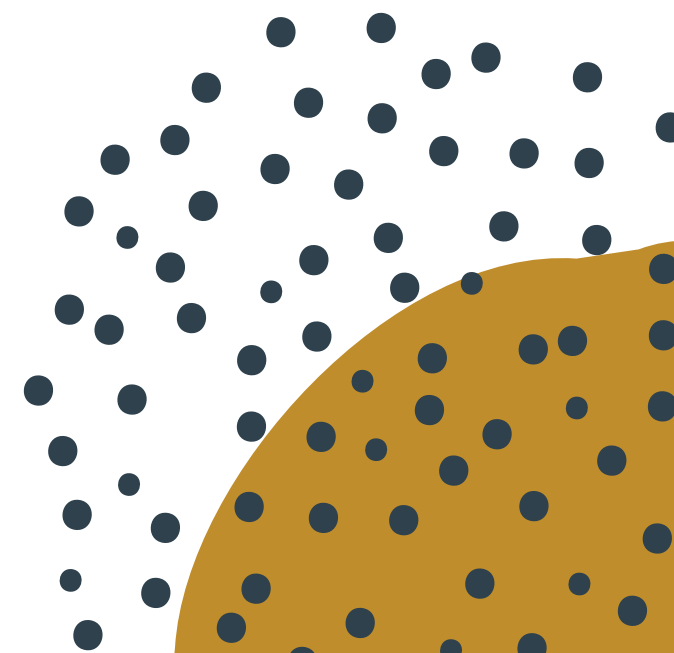
### Collection of cardboard and glass from hospitality in the Old Town of Pamplona:



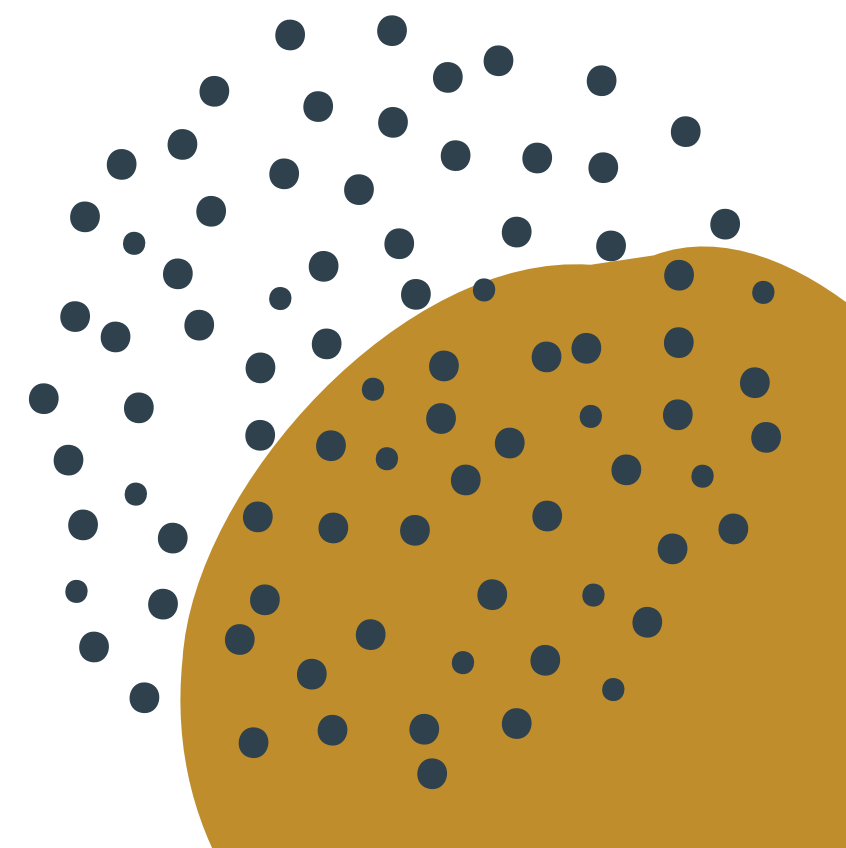
**2020**  
**Cardboard**  
-24,6%



**2020**  
**Glass**  
-63,9%

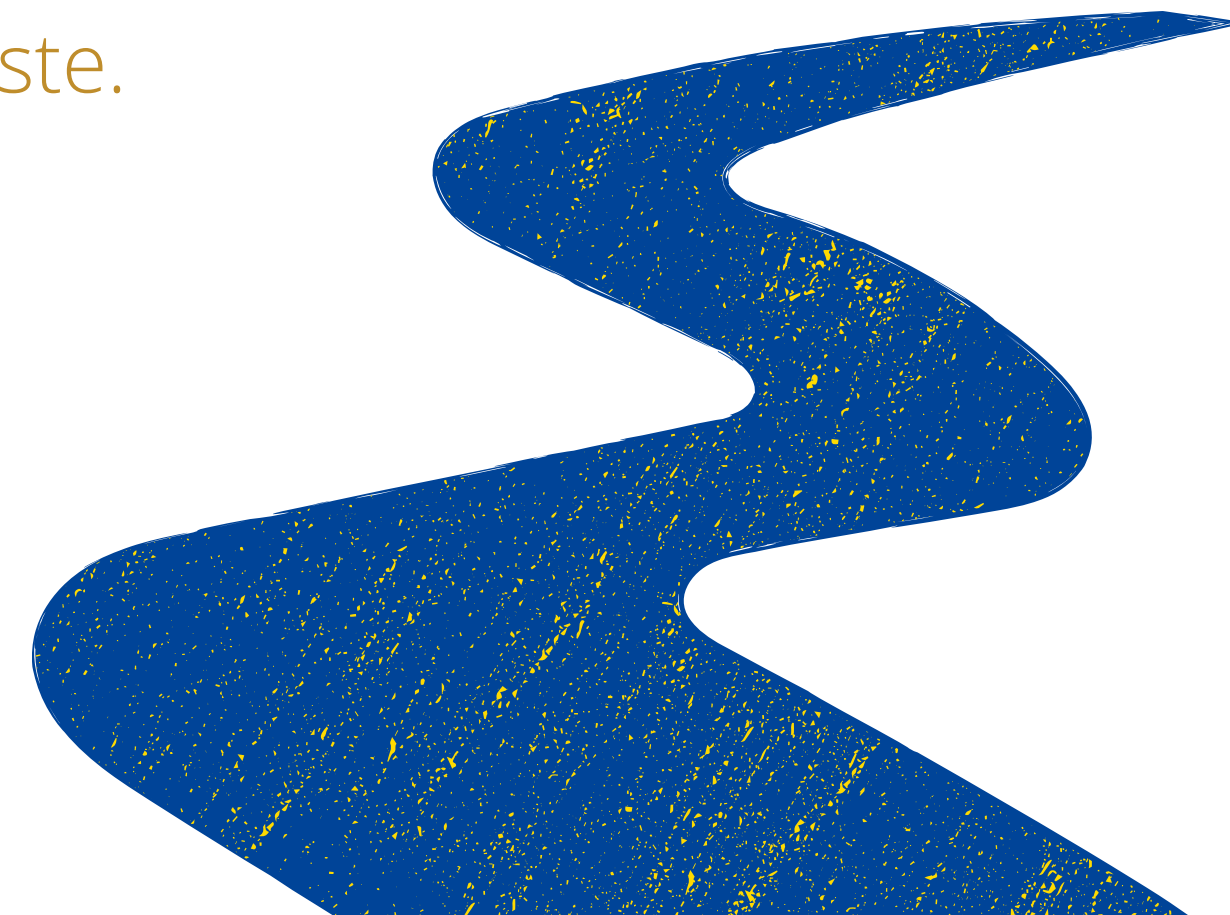
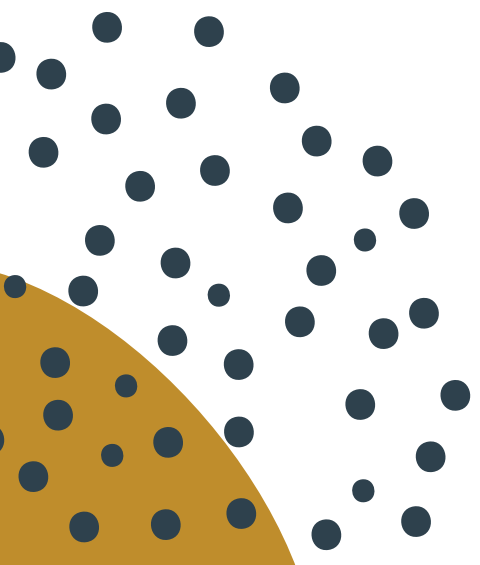
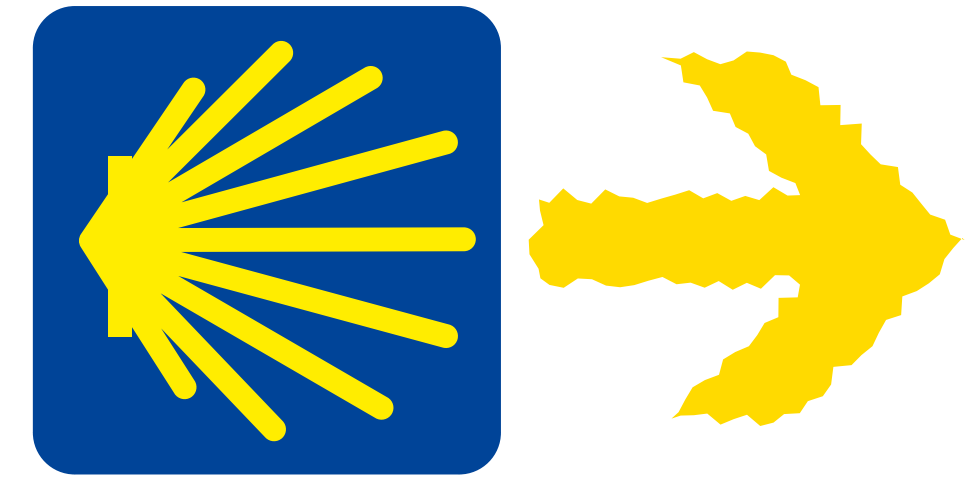


## 2. Good practices



# 2.1 The Way of Saint James

- One on the most well know pilgrimages in the world
- About **60.000** pilgrims go through Roncesvalles-Orreaga each year
- The route goes through mainly small villages
- The Way of Saint James is a source of income for the local population but also generates a considerable amount of solid waste.





# 2.1 The Way of Recycling

## Wasted collected for recycling :

- Raise awareness
- Promoting the recycling
- Distributing bags to avoid littering
- Placing extra bins at hostels



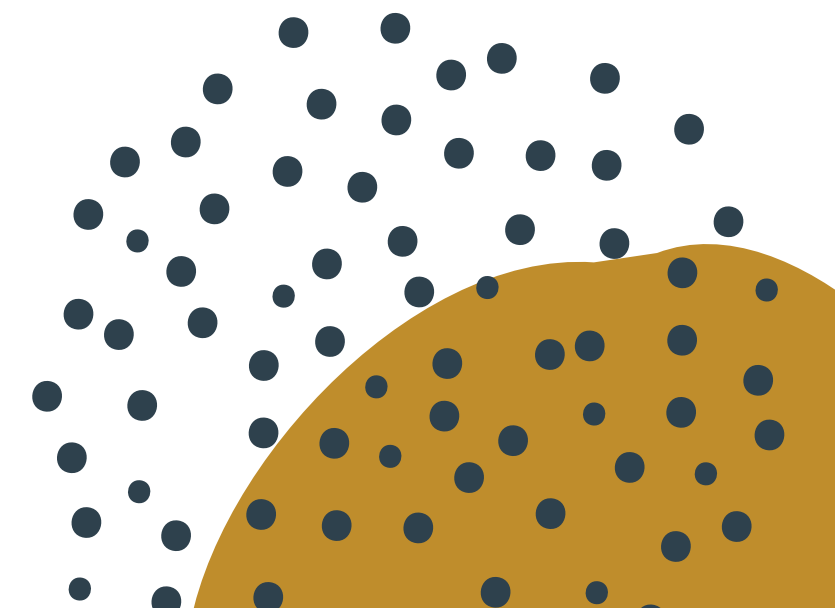
**34** participating hostels  
along the way of Saint  
James in Navarre

## Separated Waste collected for recycling (June-September 2021):

9.033 kg



3.641 kg



## 2.2 SAN FERMÍN

- San Fermin is a festival that we celebrate in Pamplona, the capital of Navarre from the 6 to the 14 of July.
- Thousands of people from around the world flood the streets of the city.
- Especially the old town receives many visitors



### Old town of Pamplona San Fermín 2019

Local population:

11.529



Visitors:

183.000





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## 2.2 RECYCLABE CUPS SAN FERMÍN

**Objective:** Minimize the waste produced at parties and events in the city.

**How:** The user pays one euro for the reusable cup, which is returned when the cup is returned. Each day the glasses are washed and ready for the next day.

**Logistic and cleaning of cups:** carried out by non-profit associations favoring labor market inclusion.

**CO2 saved:**

**2017:**

4,900 kg

**2019:**

21,900 kg

**Overall waste reduction:**

**2019:**

14%

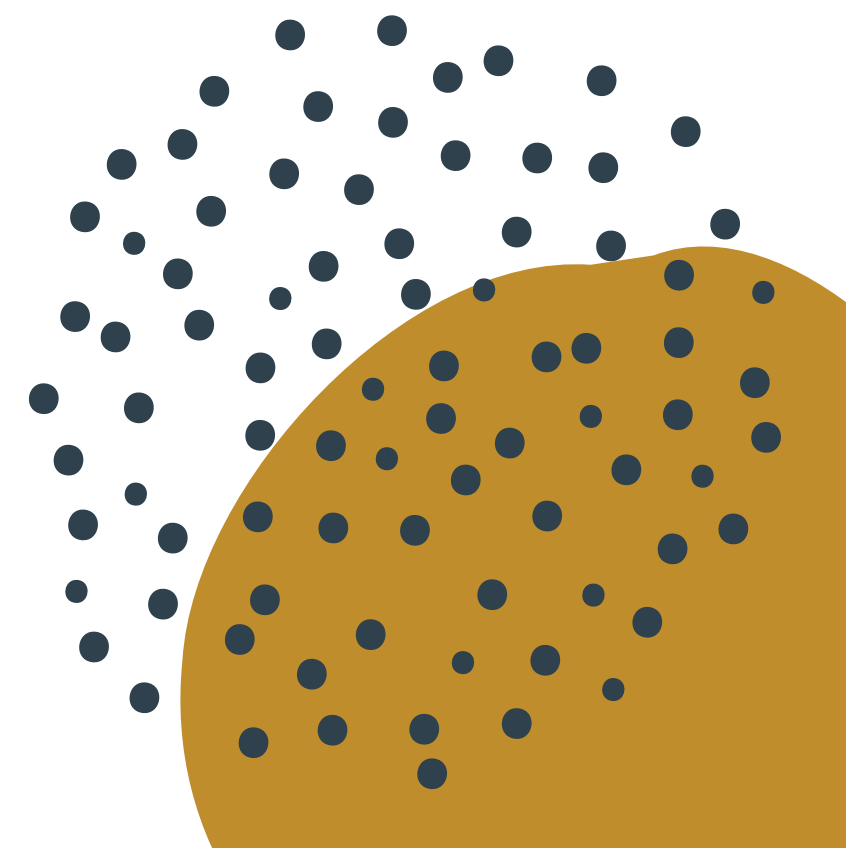
**Plastic saved:**

**2019:**

14,167 kg



# 3. Conclusions



# 3. Conclusion

- Overall data on domestic and commercial waste
- No destination wide data on tourism
- Difficult to estimate the proportion of waste originating from tourism.
- Potential of data from local authorities
- Data from projects
- Good practices show results





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**Thank you  
for your  
attention!**

## More information:



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