



**Stage 3 :**

# **Manufacturing challenge**

## **Team Eco Bean Bag**

**Pupils involved in the project**

Galatée HOUSET  
Céleste LEPICIER  
Heidi LITHERLAND  
Léna MEUNIER

**Teacher in charge of the project**

**Camille CHEVOLEAU**

# 1. Finding our idea

The idea for our project was inspired by our needs. Our playground lacks of places for students to sit, so we decided to create bean bags to have an ecological approach that combines utility and respect for the environment by integrating an upcycling approach.

Image 1: The school's playground

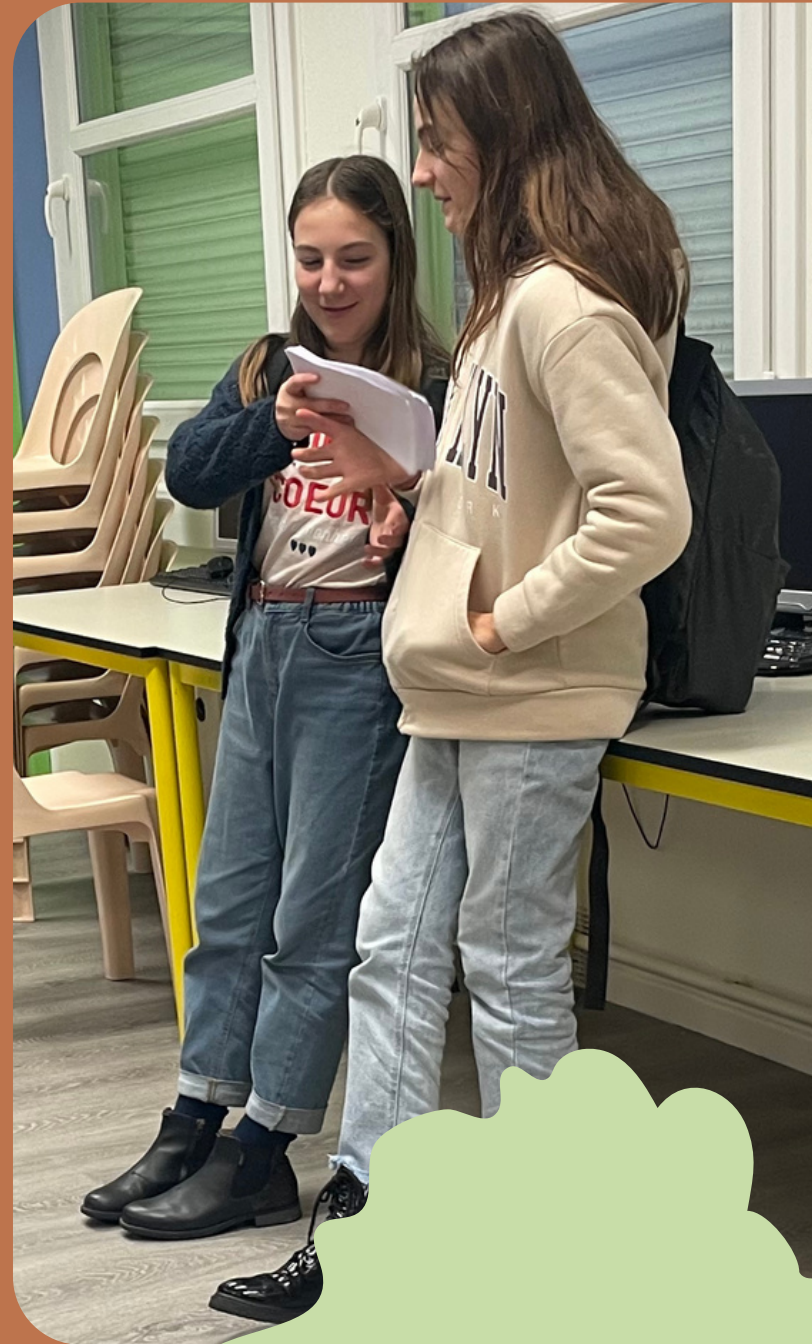


## 2. Find materials and make a donation

We wanted to use products that people have in large quantities at home and that are rarely upcycled, so that we could make lots of Eco Bean Bags, and other students could be inspired by the idea. So we organized a collection for the following items:

- Clothes (to fill the bean bag, and recuperate the zippers)
- Old shopping bags for outdoor use
- fishing line for sewing
- (Later), pillows

Image 2: Explaining the clothing donation campaign to classes





# 3. Sort, cut and design...

After one month, we had collected more than enough clothing, demonstrating the abundant resources available for this type of project.

We had to carry out several missions. In this order:

Image 3 : Two pupils picking up zippers



Image 4 : Two pupils removing seams on bags



1. Cut out zippers and check they work, and remove buttons on clothing for comfort.

2. Remove seams on bags for easier assembly



# 3. ... Produce

Image 5 : Pupil sewing bags together



When all the materials had finally been prepared, we carried out the following tasks:

Image 6 : the first mini prototype



**1 Test to decide on final product size and sew**

**2. Create a prototype that would show the advantages and disadvantages of the product before making the final product.**



# 4. Making the final product

The final product is lighter, more attractive and more resistant than the first one. We have calculated that between the cutting and assembly phases, it takes around 3 hours to create an eco bean bag.



Image 8 : Final presentation of the finished EcoBeanBag



Image 7 : Testing the beanbag against a wall



# Team Eco Bean Bag

## Stage 5 : Presentation Design

### Pupils involved in the project

Galatée Huset Céleste Lépicier Heidi Litherland Léna Meunier

### Teacher in charge of the project

Camille Chevoleau  
Collège Anne Frank - Sauzé Vaussais 79190 France

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# 1. Introducing what Eco Bean Bag means

Eco :

1

Acronym that can refer to the term economic or ecological.

Bean Bag :

2

Noun, can be defined as "a low seat or a large upholstered pillow"



3

Eco Bean Bag:

An ecological and economical alternative to commercially available bean bags, using upcycled objects.

# 2. The use of the 9R framework in our work

## Repurpose

Our only criteria for collecting clothes were the following:

- no underwear
- clothes must be machine washed before giving them to us.

As a result, we collected a lot of and stained clothes destined for the landfill.



Increasing circularity



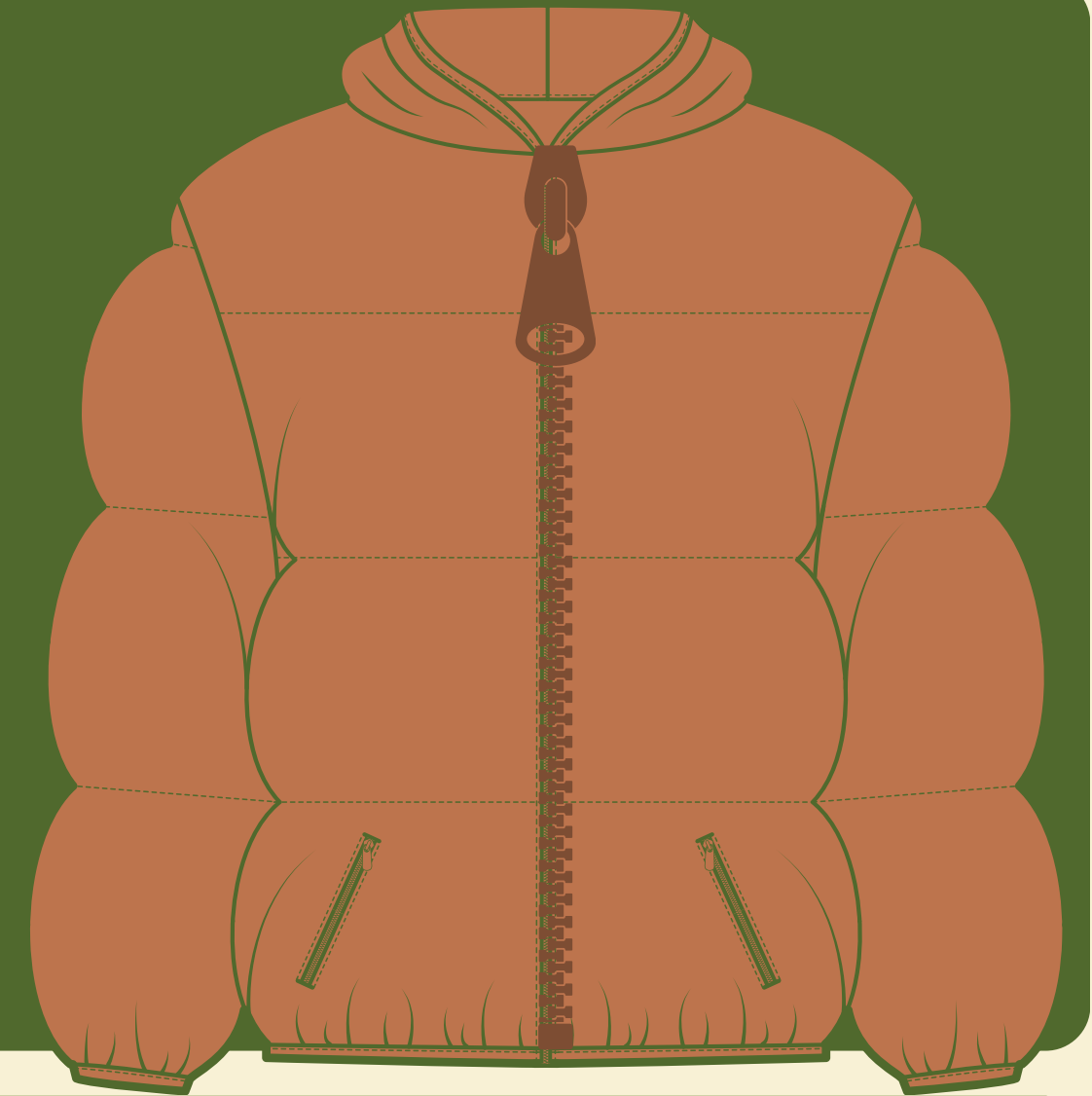


# 2. The use of the 9R framework in our work



## Remanufacture

We were able to unstitch zip fasteners on coats. This meant that we didn't have to buy the material and could upcycle it.



Increasing circularity



# 2. The use of the 9R framework in our work

## Rethink

Fishing line is extremely strong. This is one of the reasons why it was selected for our project. We have therefore rethought its use around its characteristics to sew



When they go shopping, people very often buy bags. As a result, some people end up with large quantities of bags at home. These people generally have "shopping bag storage bags"...

During the collection, we therefore offered to collect bags that seemed unnecessary. These same bags served as the architecture for our Eco Bean Bags.



Increasing circularity





# 3. How the Eco Bean Bag can change the communities in which they lives ?

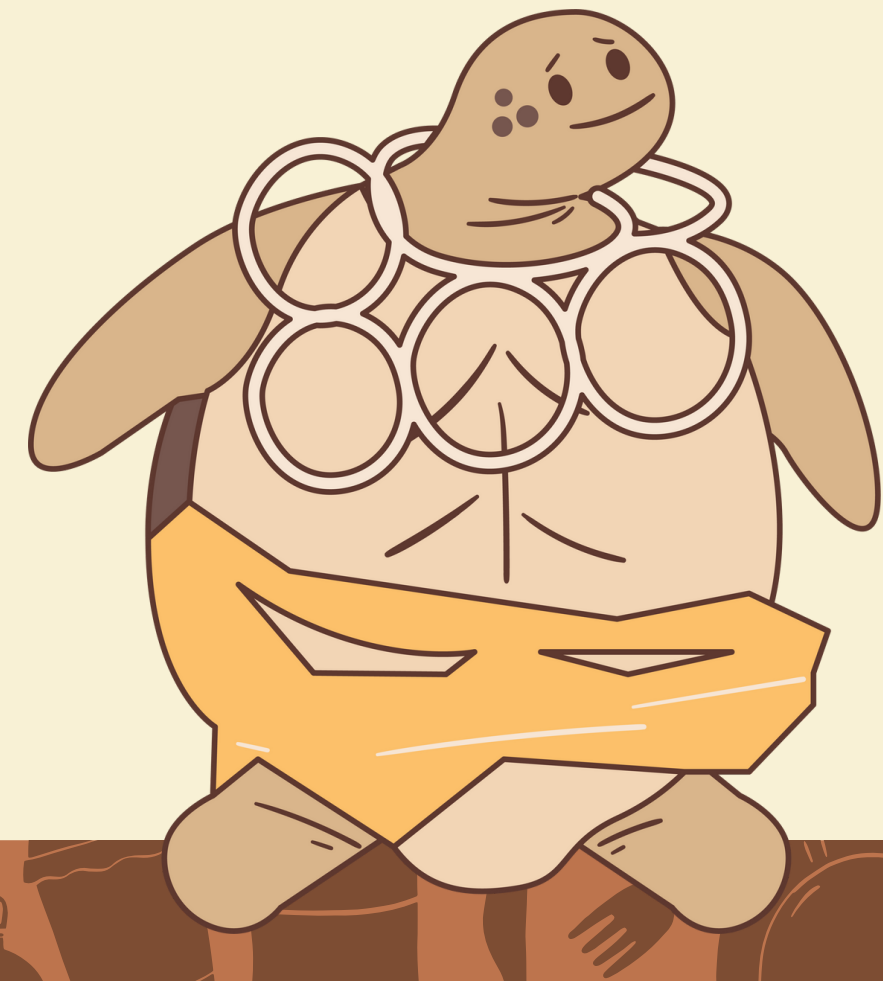


French people consume 9 kg of textiles per inhabitant per year. However, the figures also show that only a third of these textiles are sorted. This means that around 5.8 kg of clothes, household linen and shoes are not recycled.

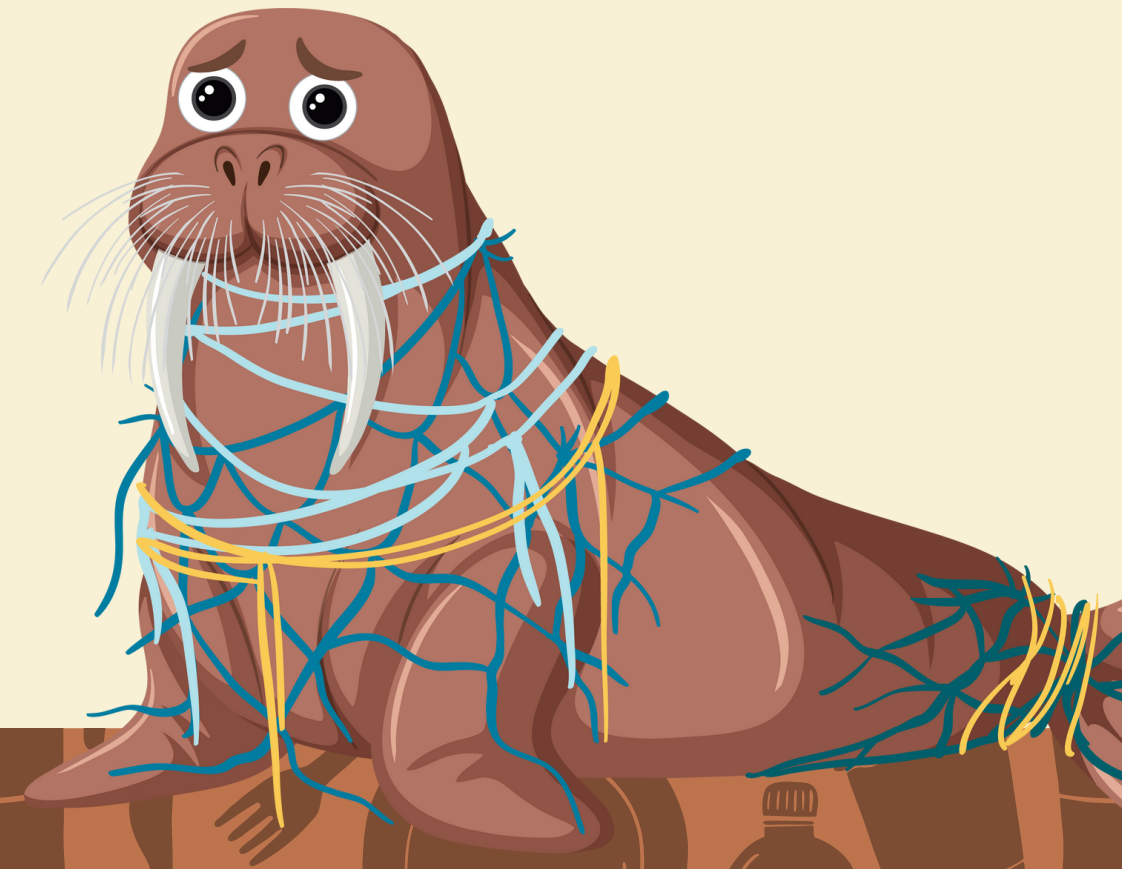
The Eco Bean Bag approach has encouraged many families to donate clothes that they feel were unusable. We sincerely believe that this is a way of including people and raising their awareness, as well as encouraging a circular economy.



# 3. How the Eco Bean Bag can change the communities in which they lives ?



Between 1950 and 2015, plastic production multiplied by 195 (National Geographic). This unsustainable product is a problem for all human populations, but also for biodiversity.



This kind of project contributes to the circular economy and reduces over-consumption. It helps to change attitudes by giving value to objects rather than throwing them away.



**Thank you  
for Reading us**



**The Eco Bean Bag Team**