

# Recyclapp

Recycling has never been  
easier.



**Studio Tallaringues**  
Marta Alirangues-Núñez



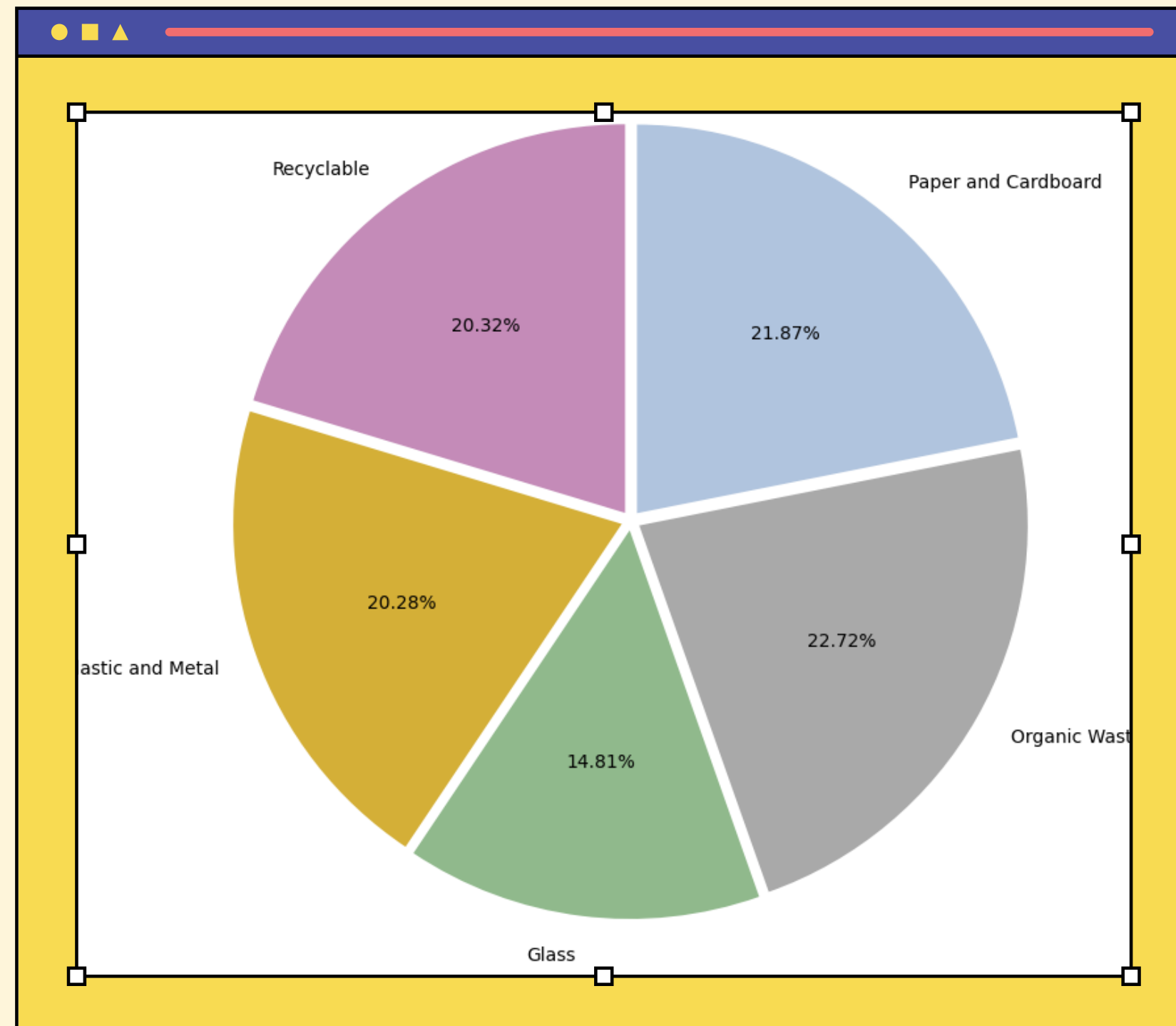
# Recyclapp

Image Classification using Convolutional Neural Network



- **Data:**
  - Kaggle (different sources)
  - Organised in 5 classes: organic, paper, glass, yellow, recycling point
- **Model**
  - 1st custom built models (low accuracy)
  - Final: Transfer Learning (accuracy > 90%)
- **Webapp:** Streamlit

# Recyclapp



## Images used

- Total: 12400
- Classes:
  - Organic
  - Glass
  - Plastic and Metal
  - Paper and Cardboard
  - Recycling Point: e-waste, clothes, shoes, furniture.

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# Presentation Outline



1

Some facts to wake you  
up and get you thinking  
-  
Current recycling situation




2

Don't panic and don't get  
ecoanxious!  
There are ways we can all  
contribute

3

"Recyclapp 1.0"  
Ready to help you  
managing your waste





# Did you know that?



Time taken for  
1 plastic bag to  
fully degrade



**It sounds overwhelming...**

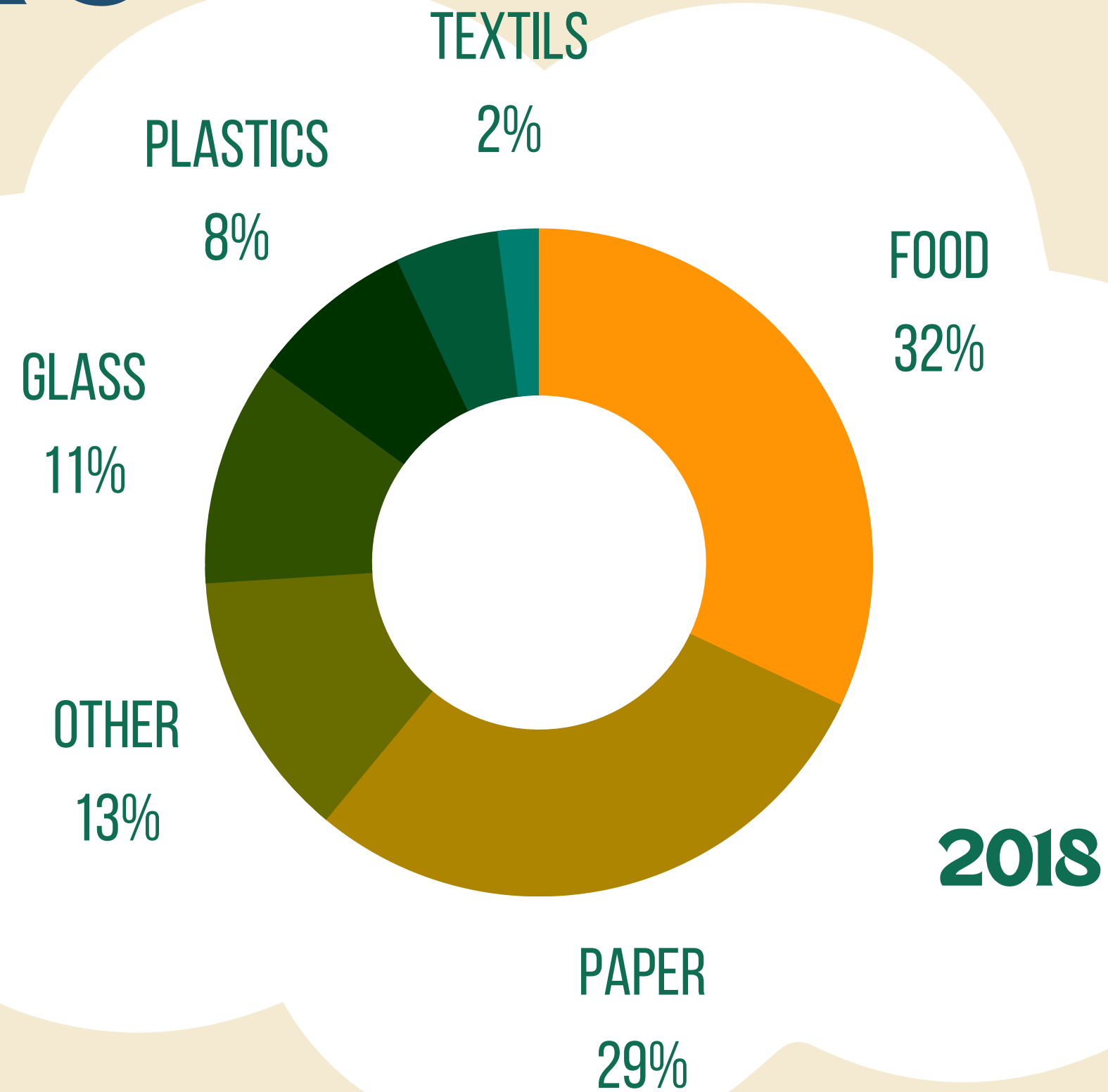
Sources:

Global E-waste monitor 2017

National Geographic - Ocean Pollution 2018

# Some numbers

## Municipal Waste Europe



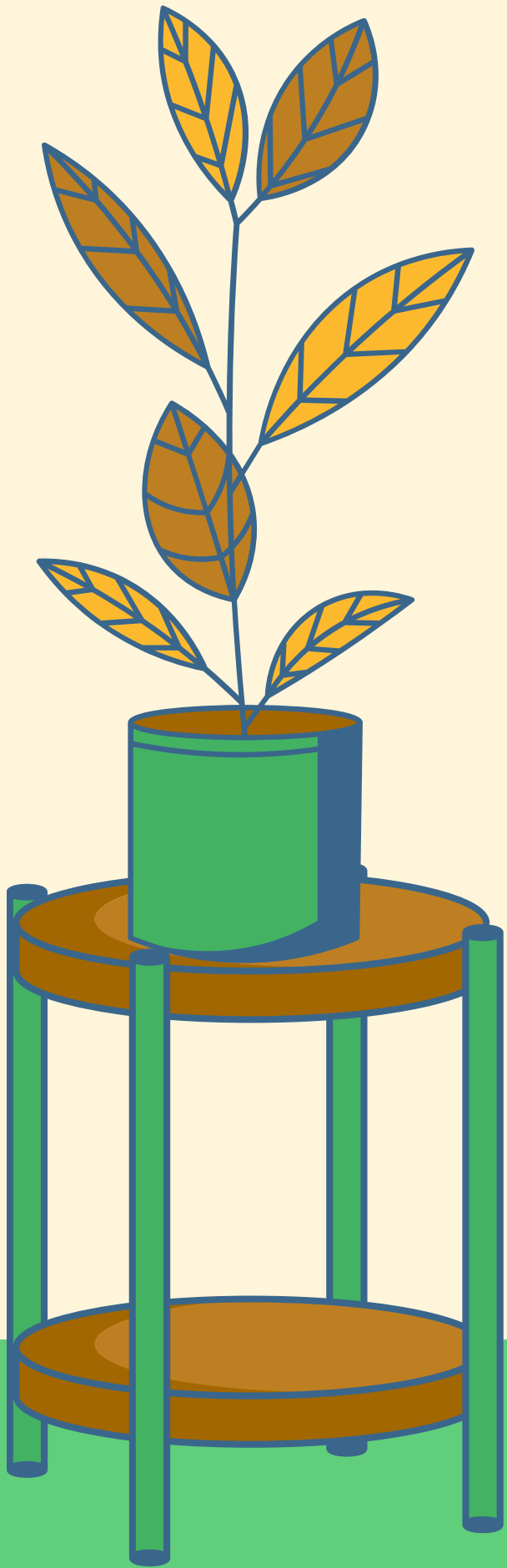
Sources:

[www.worldbank.org](http://www.worldbank.org) , [ec.europa.eu](http://ec.europa.eu) , [www.researchgate.net](http://www.researchgate.net) , [www.twosides.info](http://www.twosides.info)

# But let's not panic...yet

You cannot get through a single day without having an impact on the world around you. What you do makes a difference, and you have to decide what kind of difference you want to make.

*Jane Goodall*





# Recyclapp

- Waste classification via photo upload
- Tips and tricks to lead a more sustainable life
- Get in touch! Personalise advise and planning
- And much more...





Coming  
soon

- Camera: take photos directly from the app
- Waste tracker with option to check weekly/monthly waste production
- Map to find the nearest locations for recycling of e-waste, furniture, oil, etc.
- And much more...



# Thank you for listening!

Don't hesitate to ask any questions!

