

# Research topic: Recycled material value chain: The acquisition and characteristics of recycled plastic.

Research line: Circular economy, life cycle assessment

•Research group: Sostenipra



The use and disposal of plastic has become a commodity of modern society's, enabling a comfortable way of life. Around 40% of plastic products are only used once and end in dumpsters or in worse cases in our seas and oceans. Current markets collect, reuse and upscale these plastics from terrestrial and marine sources to be further used as primary material. What is the current market and capacity to obtain this material? What capabilities exist in the city of Barcelona? What are the emissions related to the processes (collection, shipping, manipulation) to generate a secondary material? What characteristics does this material have?

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**Main aim:** Assess obtention channels and environmental impacts of plastic collection and recycling for further use as primary material.

## MAIN TASKS:

- Identification of the channels of obtention for recycled plastic. Focus on Barcelona as main case study.
- Generation of process inventory and LCA for the identification of main environmental impacts.
- What characteristics can this product have (uses in actual markets).