



HOUSEHOLD WASTE MANAGEMENT

Household waste

Examples for more sustainable waste management



grup d'estudi
i protecció
dels ecosistemes
catalans



www.gepec.cat

Until now, we have always talked about the 3R's:

REDUCE - RECYCLE - RE-USE



We have to start thinking about the 6R's:

REDUCE + RECYCLE + RE-USE

+

RETHINK + REPLACE + REPAIR

RETHINK / REINVENT : the products and their functions



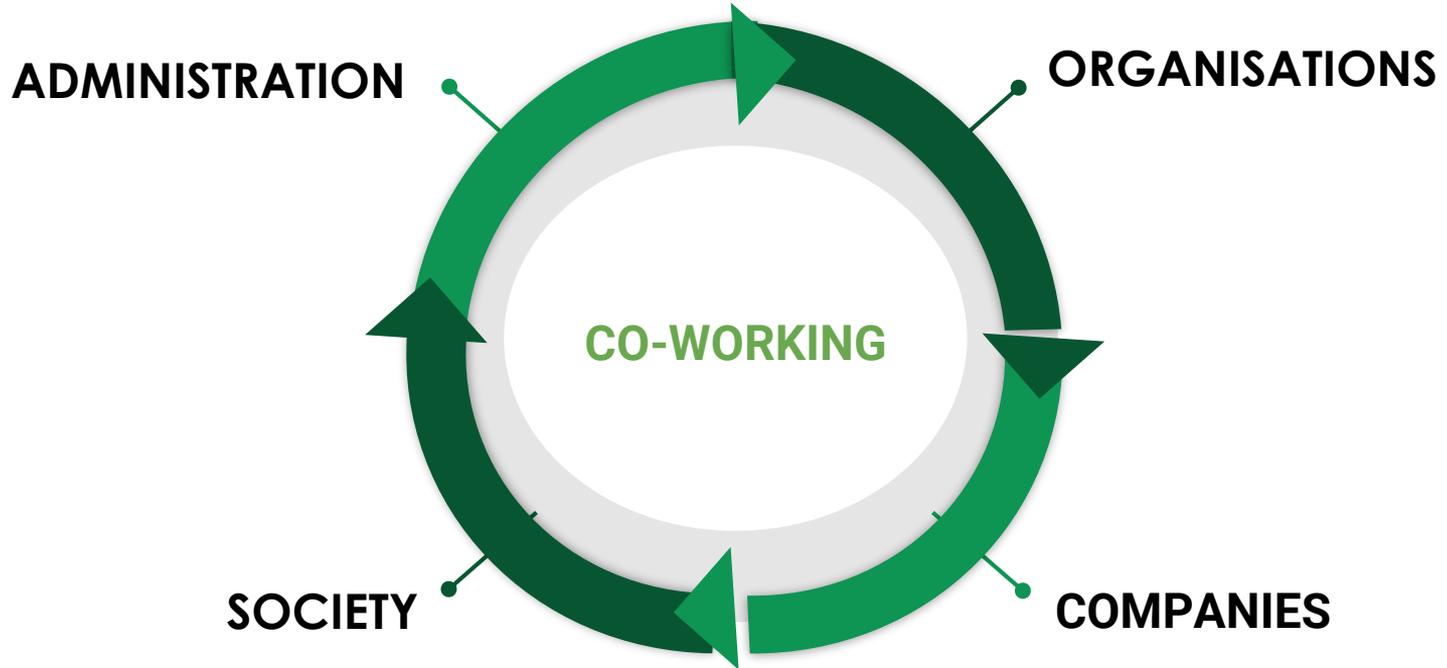
REPLACE / REBUY : the dangerous products



REUSE / REPAIR : design how to facilitate the reparation and extend the life of the products



Examples of local projects



The importance of implementing waste management in the education system to generate new job opportunities

Integrate the management of waste in the current educational system = generate new professional outings + promote the green economy.

Technological Waste Centre in Barcelona

Objectives:

To create jobs for young people at risk of social exclusion in the field of recycling and reusing new technologies.



Technological Waste Centre in Barcelona

How was it achieved? **Foundation + City Council + eReuse**

Management: **Fundació Trinijove**, foundation working with people at risk of social exclusion.

Space provided by **Barcelona City Council**.

Linket to the [eReuse programme](#): It promotes circular economy in the field of electronics through communities of activists, local groups, researchers, universities, educational centers, companies, social economy entities ...

Smart Citys

Intelligent waste collection system

- USE OF ICTs
- Optimisation of the collection service
- Container collection control to adapt collection routes to real needs
- To know the volume of waste in real-time

Smart waste collection system in Sant Cugat

Installation of volumetric detectors inside the containers.

- Adaptar horaris i ruta de recollida.
- Evitar males olors per descomposició als contenidors orgànics: dades de la temperatura i dies del seu últim buidatge.
- Càlcul de pes de cada contenidor (error màx. 5kg.)
- Informació comportament ciutadà en la generació de residus
- Freqüències emplenament contenidors segons fracció

Smart waste collection system in Sant Cugat

Installation of volumetric detectors inside the containers.

- Adapt timetables and collection route.
- Avoid bad odors by decay in organic containers. Works with data of the temperature and days of its final emptying.
- Calculation of weight of each container (maximum error 5kg.)
- Information of the citizen behavior in the generation of waste
- Frequency of container fillings according to fraction

RESULT =

**less trucks on the road,
economic savings,
less traffic,
less pollution and less noise.**

AMBITECA - Sant Cugat del Vallès

An innovative concept of waste collection center for **exchange, reuse and education.**



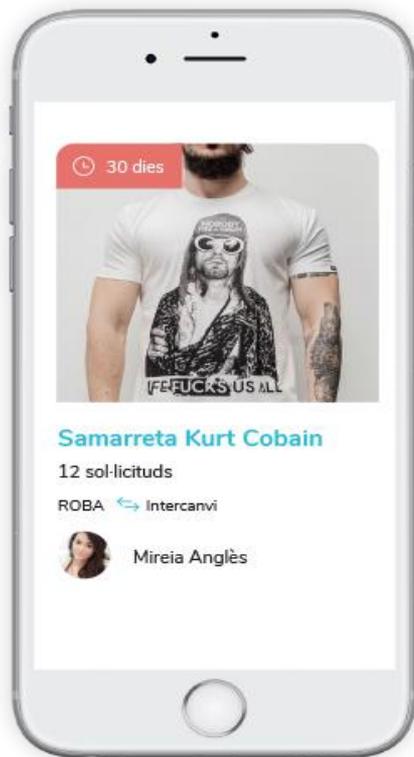
AMBITECA - Sant Cugat del Vallès

The **Exchange system** works by points (which **vary depending on the environmental impact of the delivered object**) and which can be exchanged for objects of interest.

All second hand items are placed as if it were a store.

If somebody does not have Exchange points, that person can “purchase” an object paying a symbolic Price that will be assigned to a social project.

AMBITECA - Sant Cugat del Vallès



All the objects in the **AMBITECA** are properly visible and classified **IN A WEB PORTAL AND APP**

www.stcrecupera.com, where you can also upload objects that you don't need to be exchanged or given directly

Smart containers - àrea metropolitana de Barcelona



Domestic and commercial waste collection.

Sistemes d'obertura prèvia **identificació** que han d'obrirse amb una **targeta** o amb el **mobil**.

Packaging return



Cadaqués was the first municipality in the entire Mediterranean area to install a packaging return system.

The pilot test, carried out in 2013, was a success, with more than 42.000 packages collected.