Purpose: plastic recycling rates

Compensation for sorters

Incentives for consumers

Education of consumers

Legislation

Laws

Money for research

Pre-sorting technology

Post-sorting technology

Layered plastics

Biodegradable plastics

Recycling companies:

* Recycling technology:
  + Current technology:
    - Process a certain weight per month
    - Can get a percentage of the total recyclable plastics out of the stream;
    - Takes one year to build
* Offers to municipalities to process their waste
  + Collection at home / central
* Collect waste and process it;

Potential solutions in sorting:

* New marker/ tracer technologies to differentiate and sort mono-material and multi-material packaging:
  + Chip in packaging;
  + Special polymer markers to be detected by NIR
  + Diffraction grafting
  + Digital watermarking
  + Phosphorescent/ fluorescent links
  + Bar code
  + RFID
* Boost sensor/ sorting technologies in such a way that the sorting efficiency is increased.
* Having a collection programme that would only collect flexible packaging

Recycling system in Europe

1. Schredding
2. Metal separation
3. Air classification
4. NIR separation
5. Grinding
6. Friction washing
7. Drying
8. Extrusion

Change or improvements to the flexible packaging recycling process:

* Filtration technologies;
* Odour removal/ neutralisation
* Improve cleaning process to remove paper, glue, remaining food/ other contaminants
* Develop a specific recycling process for multilayer packaging e.g. detaching the adheisive between the layers ala the Saperatec technique to recover the individual polymer layers;
* Compatibilizers in the recycles material to improve the properties of the secondary material
* Combination of processes