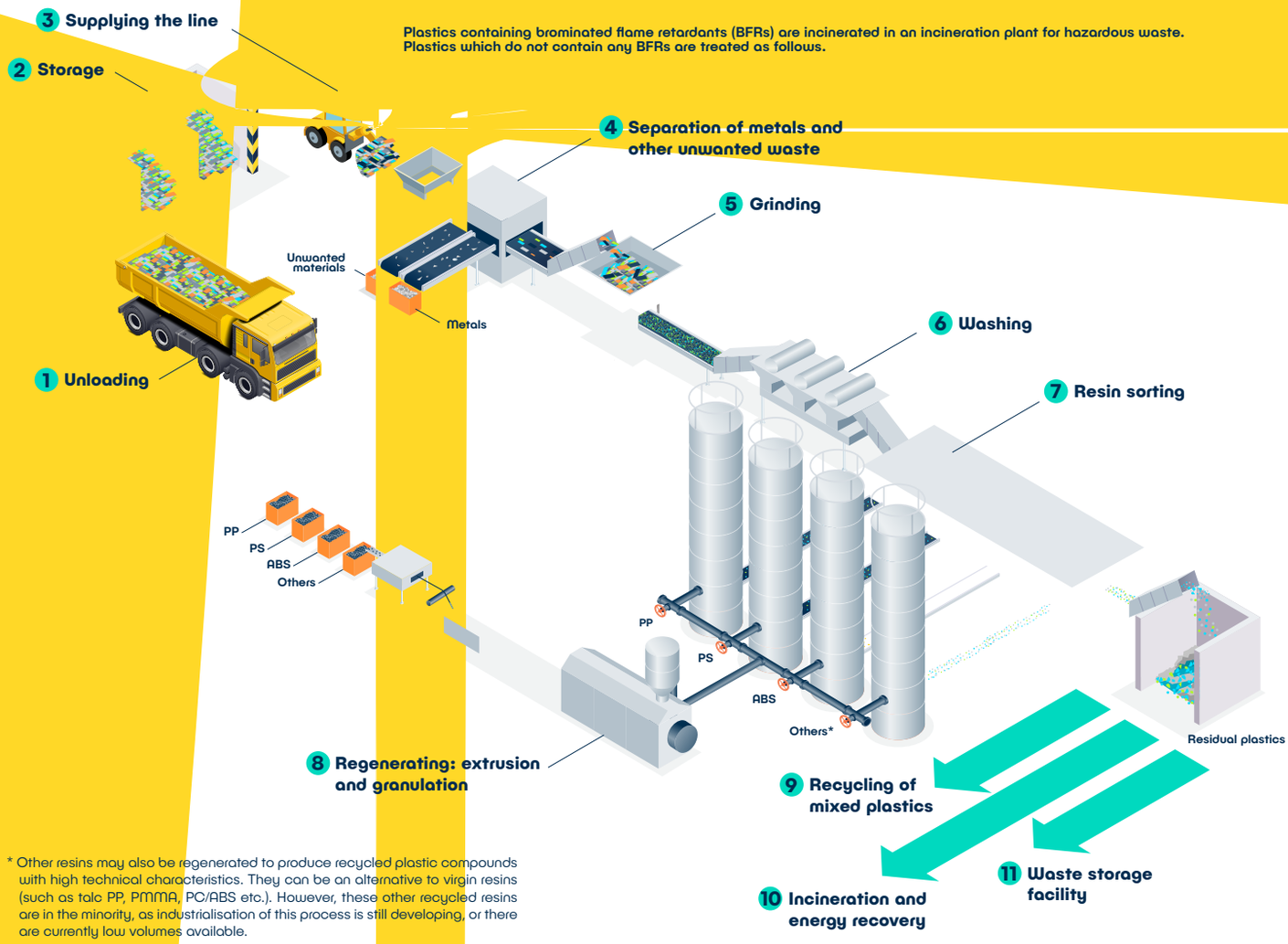
SPECIFIC TREATMENT OF MIXED PLASTIC RESINS

Plastics containing brominated flame retardants (BFRs) are incinerated in an incineration plant for hazardous waste. Plastics which do not contain any BFRs are treated as follows.



* Other resins may also be regenerated to produce recycled plastic compounds with high technical characteristics. They can be an alternative to virgin resins (such as talc PP, PMMA, PC/ABS etc.). However, these other recycled resins are in the minority, as industrialisation of this process is still developing, or there are currently low volumes available.

1 Unloading
Plastics are unloaded in dedicated areas.

2 Storage
Plastics are stored pending treatment.

3 Supplying the line
The line is supplied so that it is able to handle the necessary volumes.

4 Separation of metals and other unwanted waste
To obtain a pure plastic fraction, ferrous and non-ferrous metals, and any other unwanted waste are extracted using different techniques (such as the Overband, Eddy current, and floating methods).

5 Grinding
Plastics are then ground down into smaller fractions suitable for downstream sorting solutions.

6 Washing
Plastics are then washed to remove any remaining residues (such as dust, labels and foams).

7 Resin sorting
Plastics may be sorted into resin types by combining the following techniques:

- **Optical sorting:** various optical instruments (infra-red systems, x-rays etc.) are used to detect different types of plastic.
- **Floating method:** fractions are separated based on the difference between the density of the fractions, and that of the liquid into which they are submerged. The fractions which float, have a lower density than the liquid.
- **Triboelectric sorting:** this technique involves generating an electrostatic charge on the fractions' surface through friction, then combining this with a strong electric field.

8 Regenerating: extrusion and granulation
Once the plastics have been washed and sorted, each resin type is treated separately. They are mixed, melted, and extruded in the form of wire, then cut into small granules or compounds, which will subsequently be used in the plastic industry. At this stage, different additives can be included to give the recycled compounds some visual or technical characteristics required for their future use.

9 Recycling of mixed plastics
These mixed resins will then be treated and separated by other stakeholders. Certain types of resins may sometimes be recycled together (in some cases, a compatibilising agent can be added) in order to produce recycled plastics, often with poor technical properties.

10 Incineration and energy recovery

11 Waste storage facility

All extracted fractions are then treated separately in three different ways:
- Recycling in order to produce new materials (preferred solution),
- Energy or material recovery,
- Disposal in compliance with the relevant regulations.